101st Congress, 2d Session - - - - - - - - - - House Document 101-253

U.S. AGRICULTURAL TRADE GOALS AND STRATEGY REPORT, 1991

MESSAGE

FROM

THE PRESIDENT OF THE UNITED STATES

TRANSMITTING

THE SECOND ANNUAL U.S. LONG-TERM AGRICULTURAL TRADE GOALS AND STRATEGY REPORT FOR FISCAL YEAR 1991, PURSUANT TO SECTION 4201 OF THE OMNIBUS TRADE AND COMPETITIVENESS ACT OF 1988

OCTOBER 27 (legislative day, OCTOBER 26), 1990.—Message and accompanying papers referred to the Committees on Agriculture, Foreign Affairs, and Ways and Means and ordered to be printed

U.S. GOVERNMENT PRINTING OFFICE

49-011 WASHINGTON : 1990

H160-3

To the Congress of the United States:

In accordance with section 4201 of the Omnibus Trade and Competitiveness Act of 1988 (Public Law 100–418; 7 U.S.C. 5211), I herewith transmit the second annual U.S. Long-Term Agricultural Trade Goals and Strategy Report for Fiscal Year 1991. This report provides recommended policy goals for U.S. agricultural trade and exports, and recommended levels of spending on international activities of the Department of Agriculture, for 1-, 5-, and 10-fiscal year periods.

GEORGE BUSH.

The White House, *October 26, 1990.*

U.S. AGRICULTURAL TRADE GOALS AND STRATEGY

REPORT FOR FISCAL YEAR 1991

United States Department of Agriculture

January 1990

(3)

TABLE OF CONTENTS

EXECUTIVE SUMMARY.....i

U.S. AGRICULTURAL TRADE GOALS.....1
Methodology and Assumptions.....1
Trade Goals for Commodity Categories.....2
Additional Assumptions.....3
Trade Goals for Specific Commodities.....7

TRENDS IN INTERNATIONAL COMPETITIVENESS.....9
Commonly Used Competitive Measures.....10
Revealing Measures of Competitiveness.....11
Who Has Competitive Edge?.....14
Most Competitive, Least Protected.....16
U.S. Competitive Edge.....17

RESEARCH IN OTHER COUNTRIES.....18
Foods and Feeds.....18
Non-Food Products.....19
International Connections.....20
Program Strategy.....21

MARKETS FOR U.S. FARM PRODUCTS.....24
Trends in Consumption.....24
Deterrents to Expansion.....25
High-Income Countries.....26
Developing Countries.....28
Non-Market Countries.....30

LONG-TERM EXPORT STRATEGY.....34
Overview During the 1980s.....34
Outlook for 1990.....35
Strategies for the 1990's.....39

BUDGET PROPOSALS FOR USDA INTERNATIONAL PROGRAMS.....47
Summary of FY 1991 Proposals.....47
Five and Ten-Year Recommendations.....48
Foreign Agricultural Service.....50
Office of the General Sales Manager.....52
Export Enhancement Program.....52
Targeted Export Assistance Program.....53
Export Credit Guarantee Programs.....54
Public Law 480.....55
Office of International Cooperation and Development.....57

APPENDIX: Figures Illustrating Competitiveness.....59

EXECUTIVE SUMMARY

Report authorization

This is the second annual report submitted in accordance with Section 4201 of the Omnibus Trade and Competitiveness Act of 1988. The Act directs the Secretary of Agriculture to prepare for each fiscal year a long-term agricultural trade strategy report establishing recommended policy goals for United States agricultural trade and exports, and recommended levels of spending on international activities of the Department of Agriculture.

Trade goals

Achievable trade goals were developed for total U.S. agricultural exports at $56 billion in 5 years and $68 billion in 10 years. Goals for total grains and feed were set at $17.5 billion and $20.4 billion, respectively for fiscal years 1995 and 2000. For the same time periods, goals in billions of dollars for other commodity categories were developed as follows: Selected oilseeds and products, 8.4 and 10.0; tobacco, 4.9 and 6.9; cotton and linters, 2.7 and 2.9; planting seeds, 0.5 and 0.6; solid wood products, 6.1 and 8.6; selected horticultural and tropical products, 7.0 and 8.9; selected dairy, poultry and livestock products, 6.1 and 6.4; and selected high value products, 3.2 and 3.6.

Trends in competitiveness

U.S. agriculture is increasingly confronted with competition. It competes not only in international markets with other supplying countries, including those such as the European Community (EC) which subsidize agriculture deeply, but also with other sectors in the domestic market for economic resources. This competition is intensified by the tendency of the EC to respond to growing surpluses of traditional products such as wheat and barley by shifting the emphasis of subsidies under the Common Agricultural Policy to new products such as oilseeds, where they are at an even greater comparative disadvantage.

While the EC is the United States' major competitor in these commodities in the developed world, its major competitors in the developing world are Pakistan and Thailand in rice, Argentina in coarse grains, and both Brazil and Argentina in soybeans.

In spite of intense competition, U.S. agriculture shows longrun growth in its competitive advantage relative to nonagriculture and relative to the agricultural sectors in other countries. Growth in U.S. agricultural competitiveness during the past quarter century is explained largely by expansion of world demand, a developed infrastructure, agricultural technology, and the ability of the U.S. farmer to compete for resources.

The United States is most competitive in agricultural commodities receiving relatively little protection, such as soybeans and coarse grains. The inverse relationships between competitiveness and protection suggest that liberalization of the global agricultural market promotes both long run economic efficiency and competitiveness.

Research abroad

Following World War II, the United States took the lead in agricultural technology. But during the past decade, a much broader distribution in the generation of new technology has emerged. Today, no single country can be judged to have an overall leadership position. This strength in agricultural research in foreign countries implies a potentially increasing competitiveness. It also provides an opportunity for adding to innovation within the U.S. agricultural technology base. The opportunity consists essentially in creating a flux of marketable research ideas and technology developments from foreign countries towards the United States. Technical information of this kind can be integrated into developmental research programs in order to boost U.S. agribusiness.

Foreign research programs offer significant potential for exploring ways of producing value added products. For example, France, Switzerland and Italy have a wealth of research experience in manufacturing dairy products. Asian countries offer research expertise in cereals and fermented foods. Research on plant molecular biology in Belgium, the United Kingdom and West Germany offer powerful resources. Research on animal genetic engineering in the United Kingdom and Australia provide opportunities for greater technical collaboration. Based on foreign explorations, material is becoming available for molecular genetic manipulation to optimize biological control products.

Also, foreign research can contribute to USDA efforts to manufacture value-added, non-food products from renewable agricultural commodities, e.g. soybean oil as a resource for oleochemicals, starch-plastic composites which are biodegradable, and encapsulating materials from starch for slow release of agrichemicals.

Markets abroad

While high-income countries have traditionally been the most important markets for U.S. farm products, great promise lies in developing countries--which account for three-fourths of the world's population. Non-market economies have tended to be highly erratic in farm product purchases; however, with the new era of "perestroika," past patterns could be broken in lieu of more stable trends in import demand.

Trends in consumption patterns in world markets offer help for planning purposes. Countries that have undergone rapid industrialization and high-income growth in recent years have tended to purchase more of both traditional staple commodities and high-value products. Of the two categories, growth has been strongest for high-value goods as increases in consumer demand fueled by rapidly rising incomes have outstripped growth in domestic production.

The essence of these trends is that the United States must pay close attention to macroeconomic developments, policy decisions, and subtle changes in tastes and preferences in markets around the world to realize maximum benefit from export opportunities.

U.S. exporters face a labyrinth of protectionist trade restraints. These include tariffs, import taxes, countervailing duties, import licensing procedures, customs controls and regulations, quarantines, chemical bans, import quotas, and outright import bans. Significant progress has been made by the United States in recent years, both on a bilateral basis and in the General Agreement on Tariffs and Trade (GATT), in reducing trade barriers. Additional progress in trade liberalization, however, will require world leaders to demonstrate determination to implement meaningful domestic reforms in agricultural policies to set the stage for further development of free trade.

Long-term export strategy

Increasing foreign sales competition--especially from subsidized exports, poor economic performance and external debt problems in developing countries, and the spread of agricultural technology throughout the world confront U.S. exporters as they enter the markets of the 1990's.

These factors are partially offset by a more market-oriented U.S. farm policy and strong foreign currencies relative to the U.S. dollar. A successful conclusion to the GATT Uruguay Round would leave U.S. agriculture free to exploit its full market potential.

As economies around the world grow and consumers seek dietary improvements, there will be a gradual shift in import demand to a food basket that includes more high-value products, such as red meats and horticultural products. U.S. exports of these products have reached record levels of over $16 billion in recent years, but still remain less than 10 percent of the world total and a distant second to sales by the EC, whose agricultural subsidies extend to red meat--both beef and lamb--as well as other high value products. Thus, there is a strong potential for increased U.S. exports of high value products.

Recent events in the Soviet Union and Eastern Europe also bring great promise for expanding opportunities for U.S. agricultural exports. Growing markets for everything from bulk commodities to high value meat, dairy and poultry products may develop.

To retain and expand its world agricultural market shares, the United States must enhance its competitive position. Improvements made in competitiveness in recent years must be continued. Two policy decisions, and the depreciation of the U.S. dollar, largely account for the improvement: (1) Lower U.S. price support loan rates which resulted in reduced prices, and (2) meeting unfair competition with the Export Enhancement Program (EEP) and the Targeted Export Assistance Program (TEA).

Multilateral and bilateral trade negotiations, not only through the end of the Uruguay Round but beyond, will require constant effort on the part of U.S. trade officials, supported by U.S. Department of Agriculture staff. If agreement is reached in the Uruguay Round by U.S. trading partners, both the Export Enhancement Program and the foreign practices to which it responds, as well as other measures of support and protection which distort world agricultural trade, would be progressively reduced according to an agreed schedule.

As trade restrictions are eliminated and markets become more liberalized, U.S. agribusiness must be prepared to act quickly on these opportunities. Many U.S. suppliers lack trade experience equal to that of their competitors. Through new and on-going services and programs of the Department, assistance is being expanded to provide market information for new and potential exporters and help for exporters who believe they have been injured by unfair trade practices of foreign countries. Recent legislation is supporting USDA export outreach efforts and is fostering cooperation among Federal agencies.

Budget proposals for USDA international programs

A total program level of $8.2 billion is proposed for FY 1991 for the major international programs and activities of the U.S. Department of Agriculture. This represents an increase of just over $276 million from the program level currently estimated for these activities during FY 1990.

The FY 1991 President's budget provides increased program levels for the Foreign Agricultural Service, the Office of the General Sales Manager, and the Export Enhancement Program (EEP), while the program levels for P.L. 480 foreign food assistance and the Office of International Cooperation and Development will be somewhat reduced from FY 1990. CCC export credit guarantee and the Targeted Export Assistance (TEA) programs will continue unchanged from current levels during FY 1991.

As with other budgets submitted in recent years, these proposals continue to be based on three primary considerations. First, they continue the policy adopted with enactment of the Food Security Act of 1985 of restoring U.S. agricultural export competitiveness and regaining overseas markets for U.S. commodities and products. The 1985 Act strengthened the Department's export promotion activities in order both to assist American agricultural producers during the period of transition as U.S. farm programs became more market oriented and to regain export markets which had been lost prior to 1985. These FY 1991 proposals continue the export emphasis of recent President's budgets.

Second, these proposals acknowledge that the United States continues to face unfair trade practices in the international marketplace, including export subsidies and import barriers. These FY 1991 proposals for the Department's international activities, and for EEP and the TEA in particular, are designed to continue recent policy of meeting the challenge posed by these practices which disadvantage U.S. producers and exporters. Agreement on international agricultural policy reform during the Uruguay Round negotiations as proposed by the United States could lessen the need for these export promotion activities and allow some of them to be phased out; however, these FY 1991 budget proposals were developed based on the fact that agreement has not yet been achieved.

Third, these proposals reflect the need to reduce Federal outlays in order to meet the deficit target established for FY 1991 by the Balanced Budget and Emergency Deficit Control Act of 1985, as amended.

Five and Ten Year Budget Recommendations

Section 4201 of the Omnibus Trade and Competitiveness Act of 1988 requires this report to include recommended levels of spending for the international activities of the Department for five and ten-year periods in addition to those for the current budget year. For those programs subject to annual appropriations, the FY 1991 budget includes two alternative estimates of projected spending levels for the next five years. For most non-appropriated programs, only the second of these two estimates is developed.

The first of these estimates projects future spending levels based on a "current services" formula. This formula provides for annual budgetary adjustments based on projected levels of inflation during the five-year period; it is intended to forecast what budgetary resources are required in order to ensure that program activities are continued at current levels.

The second estimate projects levels of spending based on "policy" considerations for each program. Because of the need to reduce the Federal deficit in order to comply with the targets established in the Balanced Budget and Emergency Deficit Control Act of 1985, as amended, the policy estimate for most of the Department's international programs and activities maintains their annual program levels relatively unchanged from FY 1991 throughout the five-year period. Program levels for FY 1992 and beyond will, of course, be reconsidered each year when the President's budget is developed.

The FY 1991 budget does not extend these estimates over a ten-year period. However, for purposes of recommending levels of spending through FY 2000 for this report, it can be assumed that the methodology used to develop the five-year estimates would be extended throughout the period. Thus, the current services estimate would provide for annual inflationary adjustments to maintain programs and activities at current levels, while the policy estimate would maintain spending relatively unchanged thoughout the ten-year period.

Any budgetary recommendations for the Department's international programs and activities beyond FY 1991 must be considered highly tenuous for several reasons. First, the continued need to reduce the Federal budget deficit will require an intensive review of all of these programs each year as the annual President's budget is prepared; recommended levels of spending could change considerably from year to year. Second, agreement on international agricultural reform during the Uruguay Round negotiations can be expected to provide for a phase-out of some of these activities. The exact timetable for their phase-out will be determined during the negotiations.

FY 1991 Budget Proposals
Major International Programs of the
U.S. Department of Agriculture

Program Level Summary
(Dollars in Millions)

Summary of Resources	FY 1989 Actual	FY 1990 Estimate	FY 1991 Request
Foreign Agricultural Service.....	$95.1	$101.3	$103.5
Office of the General Sales Manager	7.2	7.4	8.1
Export Enhancement Program a/.....	338.3	566.0	900.0
Targeted Export Assistance Program.	200.0	200.0	200.0
CCC Export Credit Programs:			
Short-term Guarantees.....	4,769.8	5,000.0	5,000.0
Intermediate-term Guarantees.....	425.5	500.0	500.0
Total, CCC Export Credits.....	5,195.3	5,500.0	5,500.0
P.L. 480 Programs:			
Titles I/III Concessional Sales..	767.5	849.0	817.0
Title II Donations.....	699.0	672.6	646.0
Total, P.L. 480.....	1,466.5	1,521.6	1,463.0
Office of International Cooperation and Development.....	37.6	52.8	50.8
TOTAL, International Programs..	$7,340.0	$7,949.1	$8,225.4

a/ Reflects market value of bonuses awarded on approved sales.

U.S. AGRICULTURAL TRADE GOALS

Methodology	USDA economists used one of three methods to project trade levels for 1995 and 2000. The methods were market share analysis, multiple regression analysis of various factors thought to contribute to world export levels, and simple 3-year moving averages, using the past 5 years as a base and projecting forward. The trade goals were modified to reflect realistic supply and demand outlook and unique commodity and market characteristics.
Forecast vs goals	USDA export projections were then reviewed and adjusted to take into account current market conditions, expected future market conditions, likely changes in trade policies, and the following economic assumptions in order to develop achievable trade goals for the next decade. It is important to note that these export strategy goals may differ from current interagency estimates and base line data. Goals are viewed as end objectives dependent on U.S. strategy and programs, while forecasts and estimates are calculations made in advance based on economic assumptions but not including programs designed to influence those assumptions.
Economic growth	It was assumed the world economy will expand at approximately 3.0 percent annually through the end of the century. Economic growth in the developed countries will be at slightly less than this level; the economies of developing countries will expand at somewhat higher levels; and centrally planned economies will expand at around the world average.
World population	Population will continue to expand at current rates. The average person will continue to improve his diet by substituting meat and dairy products, where available, although the rate of substitution will probably decline.
Inflation	Inflation rates will remain modest through the end of the century. The U.S. dollar will continue to be competitive compared with major currencies.
Production and consumption	Production of the major commodities will continue to expand, as will consumption of these commodities. No major change in world stock level patterns is foreseen.
Market share	The United States will continue aggressive market development activities, although the nature of these activities will change somewhat in response to negotiated outcomes of the multilateral trade negotiations. The U.S. market share otherwise might be expected to decline, primarily as a result of increased production and trade in the other countries.

TABLE 1.--U.S. AGRICULTURAL TRADE GOALS
FY 1995 AND FY 2000
(IN MILLION MT AND BILLION DOLLARS)

	FY 1995		FY 2000	
	VOLUME	VALUE	VOLUME	VALUE
TOTAL GRAINS AND FEED 1/	121.2	17.5	139.7	20.4
SELECTED OILSEEDS AND PRODUCTS	36.0	8.4	43.2	10.0
UNMANUFACTURED AND MANUFACTURED TOBACCO	2/	4.9	2/	6.9
COTTON AND LINTERS (MIL BALES)	8.6	2.7	9.3	2.9
PLANTING SEEDS	0.3	0.5	0.4	0.6
SOLID WOOD PRODUCTS 3/	2/	6.1	2/	8.6
SELECTED HORTICULTURAL AND TROPICAL PRODUCTS 4/	5.7	7.0	6.5	8.9
SELECTED DAIRY, POULTRY, AND LIVESTOCK PRODUCTS	2/	6.1	2/	6.4
SELECTED HIGH VALUE PRODUCTS	2/	3.2	2/	3.6
TOTAL ABOVE	2/	56.4	2/	68.3

1/ Includes pulses, feed ingredients and fodders. Also, because of rounding the totals for some categories may differ from the sums of the commodities listed.

2/ Volume totals are not meaningful.

3/ Trade goals include wood products, which are not included in published U.S. Department of Agriculture export forecasts.

4/ Excludes nursery products, vinegar, juice and other beverages.

Additional assumptions	USDA analysts made the following specific assumptions for each category of agricultural exports through the year 2000:
Grain and feed	Export goals for grain and feed assume expansion in competitive production and exportable supplies, as well as steady growth in import demand, based on rising per capita consumption levels. USDA assumes there will be no major changes in U.S. policies or the status of credit and hard currency supply among less developed countries (LDCs), and no major international economic shocks (e.g. OPEC limits). Values are based on goal prices in current dollars, assuming normal rates of inflation and no domestic economic shocks to the U.S. grain/livestock markets.
Oilseeds and products	Oilseed and product export goals assume that in the long run consumption equals production and stock levels are constant. The United States will remain a residual supplier. Growth in U.S. exports will be a result of expanded consumption as opposed to reduction in competitor's exports. Future U.S. market share was forecast as equal to the 3-year average, derived from the most recent 5 years, after excluding high and low years. Export unit value was derived in the same manner.
Leaf tobacco	The United States currently maintains a 16-percent market share of world leaf exports. If the U.S. maintains this market share, U.S. leaf exports could increase about 1 percent annually in present value terms and 0.04 percent in volume through fiscal year 2000. This trend is supported by an expected 2-percent increase in total world leaf consumption, particularly in China, and a slight improvement in per capita consumption. The increase noted in world leaf consumption is supported by an expected 3-percent annual growth in world per capita GNP through fiscal year 2000. Moreover, given the growing competition abroad between U.S. cigarettes and foreign brands, increased foreign imports of quality U.S. leaf are expected for manufacturing domestic cigarettes to counter U.S. brand sales.
Tobacco products	U.S. cigarette exports account for over 90 percent of total manufactured tobacco product exports. By fiscal year 1995, this portion may reach 95 percent, and by year 2000, nearly 97 percent of U.S. manufactured tobacco exports could be in the form of cigarettes. U.S. cigarette exports currently account for nearly 23 percent of the world's cigarette trade. This market share is expected to reach nearly 40 percent by the year 2000. Given this trend, foreign sales of U.S. cigarettes are expected to improve 8 percent annually in present value terms and 11 percent in volume through year 2000.

The anticipated rise in U.S. cigarette exports is supported by an expected 3-percent annual growth in world GNP. In addition, improvements in world per capita consumption, particularly in China, and continued strength in U.S. cigarette sales to Asia, are expected to fuel U.S. cigarette exports.

Cotton linters

U.S. cotton exports are forecast to improve nearly 2 percent annually in volume and 1.2 percent in value through fiscal year 2000. The U.S. share of the world market is expected to reach 31 percent in 1990, but may go as high as 35 percent if world supplies remain tight.

Per capita consumption of cotton in the world is expected to improve through the year 2000 as a growing world GNP drives an increase in the demand for cotton over synthetic fibers. Furthermore, since the demand for cotton is fairly inelastic, world consumption of cotton is expected to grow as world population increases. Both of the above factors should advance U.S. cotton exports in the years to come.

Planting seeds

Over the last 20 years, U.S. planting seed exports have enjoyed excellent growth. By fiscal year 2000, the annual value of U.S. seed exports should reach nearly $635 million in present value terms, with the export volume increasing to 400,000 MT. So far in the 1980's, U.S. seed exports have increased a total of 28 percent. However, this trend is not expected to be maintained due to a variety of factors, including unpredictable weather patterns which cause enormous fluctuations in import requirements of many countries, and their desire and ability to become more self-sufficient.

Moreover, planting seeds have some unique attributes which make forecasting more difficult than for most commodities. Generally, consumption estimates can be made based on human and livestock demographics from which production and export forecasts can be made. However, in the case of planting seeds, individual commodity production forecasts are needed (but not available) to estimate consumption, and only then can seed production and export forecast be made. Furthermore, an aggregate planting seed estimate contains 63 separate kinds of seed plus three additional basket categories which lump the seed of the countless other varieties marketed. Planting seeds also range in size and weight which can change from year to year thus adding to the complexity of forecasting volume and exports.

Solid wood products

Based on the following assumptions, the growth in export value of U.S. solid wood products between now and 2000 is projected to slightly exceed U.S. inflation which is assumed to average 3%. At least to the turn of the century, the use of tropical hardwood log bans and export quotas are expected to be more

widely applied and/or more strictly enforced. The Philippines, Taiwan and Indonesia have either banned or severely restricted exports of logs. Recently, Taiwan and Thailand have banned logging altogether; while the Philippines has announced an export ban on rough lumber, in addition to its log ban. Malaysia has banned log exports from the mainland and is about to place prohibitive export taxes on rough lumber. In the United States, it is assumed that there will be no change in the current policy of prohibiting log exports from western Federal lands and that no other log bans will be enacted.

Tropical hardwood plywood production will remain relatively stable, increasing 1-3 percent per year as plants in Southeast Asia become more efficient and operate at a higher capacity. The EC plywood quota will remain at 650,000 cubic meters for the first 5 years and increase to 700,000 cubic meters the last 5 years.

Although there is increasing world-wide pressure to restrict or ban imports of tropical wood products from "nonsustainable" forests, particularly in EC countries, no impact on supplies of tropical hardwood products is expected in the foreseeable future. More time, effort and funds will instead be devoted to better management and utilization of existing forests.

Horticultural and tropical products

Official trade figures supplied by the Bureau of the Census, Department of Commerce significantly understate U.S. horticultural shipments to Canada, our leading export market.

FAS estimates that only 50 percent of exports to Canada are captured by Commerce. Commerce reportedly is making progress in correcting this problem. FAS has not factored this trade, uncounted by Commerce, into the forecasts. Once Commerce corrects this data collection deficiency, a surge in our export figures will take place. This increase will be distributed fairly evenly between fresh and processed fruits and vegetables.

Dairy, livestock and poultry

The dominant dairy, livestock and poultry export commodity group remains red meat, primarily beef and veal. Red meat exports are expected to grow by 38 percent over the ten year period 1991-2000. U.S. exports to Japan are expected to increase after liberalization in 1991, but at a reduced rate compared to 1988 and 1989 exports. South Korea is also expected to liberalize its beef import market which will help boost U.S. beef exports into the 21st century.

6

U.S. tallow and grease, and hides and skins exports will remain strong over the next ten years, as the United States is expected to remain the world's largest surplus producer of these products. World demand for tallow and grease, and hides and skins is expected to increase steadily over the 1991-2000 period facilitating increases in U.S. exports.

U.S. poultry meat exports are expected to grow by about one third over the ten year period 1991-2000 assuming that markets in the Far East for chicken parts continue to increase. U.S. exports of nonfat dry milk and cheese are expected to increase over the 1991-2000 period compared to the low level in 1989, while butter exports are expected to decline. U.S. dairy exports will depend heavily on Commodity Credit Corporation (CCC) stock levels and U.S. and EC dairy policies.

High value products

The basis for the estimates below were analyses of a high-value/processed food subset of U.S. export data. This approach minimized duplication of forecasts emanating from other commodity program areas. In the process of assuring a minimum amount of possible duplication, we have revised the base year figures associated with last year's report; hence, comparisons with any trends associated with the October 1989 report will be misleading.

Exports of a select group of consumer-oriented high value products have grown substantially over the past two decades. Their total value stood at $2.2 billion during the base year of 1987; having grown from $185 million since 1962, the first year for which historical comparisons are available. Particularly noteworthy growth areas have included prepared breakfast foods; breads, biscuits and cakes; edible offal and dried meats; frozen vegetables; chocolate and products; non-alcoholic beverages; cider; beer, ale, porter and stout; and essential oils.

TABLE 2.--AGRICULTURAL TRADE GOALS
FY 1995 AND FY 2000
(IN MILLION MT AND BILLION DOLLARS)

	FY 1995		FY 2000	
	VOLUME	VALUE	VOLUME	VALUE
GRAINS AND FEED, TOTAL 1/	121.2	17.5	139.7	20.4
WHEAT AND FLOUR	41.0	6.5	46.0	7.5
COARSE GRAINS	69.0	8.0	80.0	9.2
RICE	3.2	1.0	3.7	1.2
OTHER	8.0	2.0	10.0	2.5
SELECTED OILSEEDS AND PRODUCTS	36.0	8.4	43.2	10.0
SOYBEANS	25.2	5.4	30.2	6.3
SOYBEAN MEAL	8.4	1.6	9.9	1.9
SOYBEAN OIL	1.0	0.6	1.2	0.7
SUNFLOWERSEED	0.3	0.2	0.5	0.3
SUNFLOWERSEED OIL	0.3	0.2	0.4	0.3
COTTONSEED OIL	0.3	0.1	0.4	0.2
PEANUTS	0.5	0.3	0.6	0.3
TOBACCO, TOTAL	2/	4.9	2/	6.9
UNMANUFACTURED	0.2	1.3	0.2	1.3
CIGARETTES (BIL PIECES)	181.2	3.6	275.3	5.6
COTTON AND LINTERS (MIL BALES)	8.6	2.7	9.3	2.9
PLANTING SEEDS	0.3	0.5	0.4	0.6
SOLID WOOD PRODUCTS 3/	2/	6.1	2/	8.6
SELECTED HORTICULTURAL PRODUCTS 4/	5.7	7.0	6.5	8.9
FRESH/PROCESSED FRUIT AND JUICES	2.5	2.9	2.9	3.8
FRESH/PROCESSED VEGETABLES	1.5	1.4	1.7	1.8
TREE NUTS	0.3	1.0	0.3	1.3
WINE AND MALT BEVERAGES	2/	0.3	2/	0.4
SUGAR AND TROPICAL PRODUCTS	1.1	1.4	1.2	1.6
SELECTED LIVESTOCK PRODUCTS, TOTAL	2/	4.9	2/	5.2
LIVE ANIMALS (1,000 HD)	425.0	0.1	420.0	0.1
RED MEAT (1,000 CWE) 5/	0.7	2.7	0.8	3.2
HIDES AND SKINS (1,000)	0.9	1.7	0.8	1.5
ANIMAL FATS	1.4	0.4	1.4	0.4
SELECTED DAIRY PRODUCTS, TOTAL	350.0	0.6	380.0	0.6
BUTTER (1,000 MT)	25.0	6/	30.0	0.1
CHEESE (1,000 MT)	25.0	6/	30.0	0.1
NONFAT DRY MILK (1,000 MT)	300.0	0.6	320.0	0.6

8

TABLE 2 (CONTINUED).--AGRICULTURAL TRADE GOALS
FY 1995 AND FY 2000
(IN MILLION MT AND BILLION DOLLARS)

	FY 1995		FY 2000	
	VOLUME	VALUE	VOLUME	VALUE
POULTRY MEAT (1,000 MT)	550.0	0.6	580.0	0.6
SELECTED HIGH VALUE PRODUCTS, TOTAL	2/	3.2	2/	3.6
GRAND TOTAL	2/	56.4	2/	68.3

1/ Includes pulses, feed ingredients and fodders. Also, because of rounding the totals for some categories may differ from the sums of the commodities listed.

2/ Volume totals are not meaningful.

3/ Trade goals include wood products, which are not included in published U.S. Department of Agriculture export forecasts.

4/ Excludes nursery products, vinegar, juice and other beverages.

5/ CWE -- Carcass weight equivalent.

6/ Less than $50 million.

9

TRENDS IN INTERNATIONAL COMPETITIVENESS

Introduction

Competitiveness is the ability to sell commodities to overseas buyers at prices as low as or lower than those of other potential suppliers while earning at least opportunity cost returns on domestic resources used to produce and market these commodities. This definition highlights competition in commodity-input markets and between domestic and foreign economies.

The U.S. agricultural sector competes in international markets with other supplying countries to deliver consumer goods. It also competes with other sectors in the domestic market for economic resources. In this chapter, trends in agricultural competitiveness are examined using three different measures: market share, relative export advantage, and revealed competitiveness. Each measure has a special use.

Conclusions

The United States shows longrun growth in its competitive advantage in agriculture relative to nonagriculture and relative to the agricultural sectors in other countries. Expansion of world agricultural demand, a developed infrastructure, agricultural technology, and the ability of the U.S. farmer to compete for resources largely explain growth in U.S. agricultural competitiveness during the past quarter century.

Increased agricultural competition confronts the United States. The major competitor in the developed world, the European Community (EC), has been focusing resources on wheat, coarse grains, rice, and soybeans, despite operating at relative competitive disadvantages in these commodities. Major competitors in the developing world include Pakistan and Thailand for rice, Argentina for coarse grains, and both Brazil and Argentina for soybeans.

The United States is most competitive in agricultural commodities receiving relatively little protection, such as soybeans and coarse grains. Negative relationships between competitiveness and protection in agriculture suggest that openness toward the global market promotes both longrun economic efficiency and competitiveness.

Commonly used competitive measures

Comparative costs of production is a frequent starting point for analyses of competitiveness. Basic economics holds that the producer with the lowest cost of production will be the most successful competitor. Such a competitor is said to have the best underlying "competitive advantage." But, reliable international costs of production data are rarely available. Even when such information is available, it is often difficult to tell who has a true advantage in world markets. The reason is that producer prices are often affected by forces beyond farmers' control, such as government policies that affect exchange rates. Also, the continually changing value of currencies makes it difficult to compare costs of production between different countries. Moreover, a host of factors other than farm variable costs determine country/commodity competitiveness. The relative efficiences of the marketing, transportation, and technology-generating infrastructure directly influence the ability to compete in the global market. A single focus on comparing crop enterprise budgets among countries may actually restrict the ability to identify changing patterns of competitiveness.

The most commonly used indicator of competitiveness is market share--the percentage of the world market of a commodity held by an exporter. Shifts in commodity market share reflect how competitiveness has changed for like commodities imported by other countries. Changing U.S. patterns for wheat, coarse grains, rice, and soybeans between 1961-88 are shown in figure 1.

The United States captured a greater share of the world grain market in the early 1970's. U.S. market shares for wheat and coarse grains had declined in the 1960's, but suddenly increased in the early 1970's. The rice share continued to rise steadily. Increases in market shares in the early 1970's corresponded with sharp drops in the value of the U.S. dollar in the international market, especially in 1971-72 when the United States devalued its currency.

After the adoption of flexible exchange rates, the dollar continued losing value until 1979, making most U.S. goods more competitive in foreign markets. The United States was able to increase its market share for some commodities, for example:

	1970-71	1979-80
	Percent	
Coarse grains	34.5	57.0
Wheat	31.2	38.3

But, market shares for rice and soybeans declined. The loss in the soybean market was particularly dramatic: the U.S. share dropped from 81.2 percent in 1970-71 to 62.7 percent in 1979-80 as increased competition from Brazil and Argentina exceeded the positive effects of dollar devaluation.

The United States is generally better able to expand market share for agricultural commodities when the world economy and global trade are booming than when they are contracting. The U.S. agricultural sector responds to growth in world demand because of its abundant land resource base and efficient transportation infrastructure.

The United States lost market shares for wheat, coarse grains, rice, and soybeans in the 1980's as global economic conditions deteriorated. The world experienced a recession in 1981-82, and the value of the U.S. dollar increased sharply relative to other currencies between 1980 and 1985. Growth in world trade and global prosperity stopped abruptly in the early 1980's and surpluses of agricultural products mounted. U.S. market share for coarse grains peaked at 56 percent in 1979-80, then fell to one-half this level in 1986 before rebounding to 44 percent in 1988. The United States also regained wheat market share in 1988. The United States started recapturing its lost market share for these commodities as the U.S. dollar declined and as strong export policies in the 1985 U.S. farm legislation became effective.

Simple comparisons of market shares do not always adequately describe ability to compete. For example, Saudi Arabia, a country not likely to have a competitive edge in agriculture, was the largest exporter of wheat in the Middle East in 1987 and competed effectively in several U.S. wheat markets in North Africa and Asia. Large government subsidies, not resource advantages, allowed Saudi Arabia to increase its market share. For the past 4 years, Saudi wheat producers have received five times the world price of wheat.

Other measures of competitiveness, while more complicated, tell us more about competitiveness than can the market share measure.

Revealing measures of competitiveness

Two additional measures, relative export advantage and revealed competitiveness, disclose more about a country's competitiveness than do either costs of production or market shares. Relative export advantage and revealed competitiveness indicators are relative measures cast with a comparative advantage framework. They represent summary statements of competitiveness when competitiveness is viewed within the context of country and commodity interdependence. They show how a country's exports are doing relative to other supplying

countries, and how its traded commodities are competing for a share of the country's export pie. Relative export advantage and revealed competitiveness measures can answer such questions as: How well does a country export one good, say soybeans, compared with all other goods; and how well does one country compare with another and the rest of the world?

Let us first examine relative export advantage. Suppose we are interested in the United States and soybeans. U.S. relative soybean export advantage can be expressed using four market shares:

$$\text{U.S. relative soybean export advantage} = \frac{\dfrac{\text{U.S. soybean export share}}{\text{U.S. export share of all goods excluding soybeans}}}{\dfrac{\text{Foreign soybean export share}}{\text{Foreign export share of all goods excluding soybeans}}} =$$

$$\frac{\dfrac{.5354 \text{ share}}{.1043 \text{ share}}}{\dfrac{.4638 \text{ share}}{.8957 \text{ share}}} = \frac{5.1329}{.5178} = 9.91$$

The record reveals that the United States was 9.91 times better at exporting soybeans than other things it exported, compared with all foreign countries. The concept of relative export advantage makes clear distinctions between a specific commodity and all other commodities and between a specific country and the rest of the world, eliminating country and commodity doublecounting.

Suppose, we are interested in comparing whether the United States is more competitive at soybeans or coarse grains? Let us see, using a nonshare definition of relative export advantage:

$$\text{U.S. relative coarse grains export advantage} = \frac{\dfrac{\text{U.S. coarse grain exports}}{\text{U.S. exports excluding coarse grains}}}{\dfrac{\text{Foreign coarse grain exports}}{\text{Foreign exports excluding coarse grains}}} =$$

$$\frac{\dfrac{\$6.37 \text{ bil.}}{\$199.33 \text{ bil.}}}{\dfrac{\$7.62 \text{ bil.}}{\$1{,}706.12 \text{ bil.}}} = \frac{.03194}{.00447} = 7.14$$

According to the above data, the United States has a better relative export advantage in soybeans (9.91) than in coarse grains (7.14).

To arrive at a measure for revealed competitiveness, we subtract the relative import advantage of the sector from its relative export advantage. For example, revealed competitiveness measures for the agricultural sector in the United States and other developed countries are

U.S. relative agricultural export advantage	-	U.S. relative agricultural import advantage	=	3.66

and

Other developed countries relative export advantage in agriculture	-	Other developed countries relative import advantage in agriculture	=	.62

In the charts accompanying this report, we convert raw indexes (such as 9.91, 7.14, 3.66, and .62) into natural logarithms (2.29, 1.92, 1.27, -.47) in order to faciliate comparisons between export advantages--which have plus signs--and export disadvantages--which have minus signs.

Revealed competitiveness is a statistic measuring how well a country competes when all commodities in a sector such as agriculture are lumped together and both export and import advantages are assessed. The revealed competitiveness statistic summarizes many effects and countereffects into one number. That number compared with another country's number is a way to summarize a very complicated world trade picture.

Who has the competitive edge in agriculture?

The United States, Australia, and Canada, which had market shares of 40.4, 10.2, and 16.4 percent for wheat in 1981, all showed relative export advantages for wheat for the whole period analyzed (see positive values in fig. 2). By contrast, the EC, which had a large market share of 21.5 percent for wheat in 1981, had a relative export disadvantage for wheat in 1961-85 (see negative values in fig. 2), though it nearly had a relative export advantage in 1986.

Among principal coarse grains suppliers, only the United States, with a 50.5-percent market share in 1981, and Argentina, with a 10.5-percent market share that same year, had positive relative export advantages for the whole period analyzed (fig. 3). Canada flip-flopped between positive and negative values during the period. With 5.1 percent of the market in 1981, Canada had relative export disadvantages for coarse grains in 1962-70, 1974, 1977, 1980, 1984-85, and 1988. The EC had relative export disadvantages for coarse grains in every year but 1987, despite its comparatively high market share of 19 percent.

The United States, Thailand, Pakistan, and the EC were the largest world rice exporters in 1981 with 26.4, 21, 9.8, and 8.9 percent market shares. Among this group, the two developing countries (Thailand and Pakistan) had higher relative export advantage rankings than the developed areas, the United States and the EC (fig. 4). Pakistan dramatically boosted its competitiveness for rice in the first half of the 1970's when the green revolution, in which farmers switched to high-yield seed varieties and adopted more modern cultivation practices, greatly increased output.

The EC had a relative export disadvantage for rice, although it is a major world supplier. This trend matches the EC's revealed competitive disadvantages for other grains.

The United States still dominates the soybean market despite increasing foreign competition. The U.S. 1981 market share for soybeans was 57.6 percent, while market shares in Brazil, EC, and Argentina were 22.3, 10.6, and 5.1 percent. The United States ranked high in relative export advantage during 1961-88 (fig. 5). However, Brazil and subsequently Argentina penetrated this market in the 1960's and 1970's, as shown by sharp increases in their relative export advantage measures and corresponding declines in the U.S. measures.

The United States, which had 18.9 percent of the world market for fibers in 1981, displayed a rising fiber relative export advantage trend since 1969 (fig. 6). Rising competitiveness trends for fibers also characterize Australia and the U.S.S.R. They controlled 18.0 and 12.3 percent market shares respectively in 1981. Egypt, with 3.90 percent of the market, shows the highest relative export advantage level of any of the major suppliers, but their competitiveness in fibers is diminishing. Again, the EC, with 4.5 percent of the market, operated at a relative competitive disadvantage.

Relative export advantage measures reveal an overall trend of sustained U.S. competitiveness for soybeans, wheat, and rice, despite longrun declining U.S. market share for these major staples. U.S. soybean producers, for example, are still competitive in the global market relative to other world producers and relative to producers of other U.S. commodity exports. Brazil and Argentina are gaining ground in soybean trade, though, as shown by sharp increases in their relative export advantage scales for this commodity. Since 1985, for example, Argentina has averaged a scale on soybeans of 3.87, compared with the U.S. scale of about 2.09. Thus, Argentina currently has a relative export advantage over the United States.

Let us now turn to the agricultural sector as a whole. The United States and other "high-income countries" show uptrends for revealed agricultural competitiveness, while "low- and middle-income countries" show downtrends (fig. 7). However, the downward trend of low-income countries reversed itself in 1974, and, after a 3-year deterioration in 1978-80, began regaining strength until 1987.

The declining competitiveness among developing countries occurs as a result of their shrinking relative agricultural export supply and rising relative import demand for agricultural commodities. This finding matches the observation that developing countries are important future sources of import demand because domestic demand in developing countries is outstripping domestic supply. The opposite situation exists in the United States, where growth in relative agricultural import demand is falling while growth in relative agricultural export supply is rising. These demand and supply shifts suggest that developing countries will provide markets for U.S. agricultural products unless their ability to purchase imports is constrained.

The United States, compared with a mixed group of economies, has generally had the strongest revealed agricultural competitiveness since 1973 (fig. 8). The U.S.S.R. and the developing countries lost agricultural competitiveness from the early 1960's to the early 1980's and then reversed trend. Eastern Europe shows a pattern of alternative neutral and slightly negative rankings on the revealed agricultural competitiveness scale.

Most competitive, least protected

Relative export advantages and revealed competitiveness in agriculture show an underlying pattern: that the most competitive agricultural exporters are often the least protected. We use the relative export advantage measure, the revealed competitiveness measure, and the producer subsidy equivalent measure--the percentage of producer income provided by government assistance--to help uncover the kind of policies that foster competitiveness.

Protection in the form of government intervention may enhance competitiveness in the short run. Government support can help disadvantaged commodities cross the threshold to comparative advantage because it helps producers attract private capital investment. But prolonged protection may hurt a country's competitiveness as excess profits bid up prices of fixed assets and, hence, the costs of production.

Figure 9 shows how major agricultural exporters compare on competitiveness and protection for total agriculture. The EC, the United States, Brazil, Australia, and Canada were used to compare revealed agricultural competitiveness and agricultural producer subsidy equivalents. These countries had 32.1, 19.8, 4.2, 4.1, and 3.4 percent of market share in 1981. The EC has the highest level of government intervention, and it alone among the major agricultural exporters operates with a revealed competitive disadvantage in agriculture.

Countries suffer economic losses when resources are misallocated. An example is the EC. Although the EC's Common Agricultural Policy supports European agriculture and increased the market share of the EC's agricultural exports, it has not yet enabled the EC to operate at a revealed competitive advantage in agriculture (fig. 9).

In developed countries, government intervention and competitiveness usually are inversely related. In the United States, for example, coarse grains and soybeans, the least protected, are the most competitive commodities, as the relative export advantage statistics in figure 10 indicate.

United States has a competitive edge, especially in less subsidized commodities

The United States shows longrun competitive growth in agriculture relative to nonagriculture and relative to the agricultural sectors in other countries. Expansion of world agricultural demand, a developed infrastructure, agricultural technology, and the ability of the U.S. farmer to compete for resources largely explain growth in U.S. agricultural competitiveness.

Increased agricultural competition confronts the United States. Major competitors in the developing world include Pakistan and Thailand for rice, Argentina for coarse grains, and both Brazil and Argentina for soybeans. The major competitor in the developed world, the EC, has been focusing resources on wheat, coarse grains, rice, and soybeans, despite operating at relative competitive disadvantages in these commodities.

The United States is most competitive in agricultural commodities receiving relatively little protection, such as soybeans and coarse grains. Negative relationships between competitiveness and protection in agriculture suggest that openness toward the global market promotes both longrun economic efficiency and competitiveness.

RESEARCH IN OTHER COUNTRIES

Introduction

Global leadership in high technology has become rather blurred. Before World War II, Britain and Germany were pre-eminent in advanced agricultural and industrial technology. After the War, the United States took the lead. During the past decade, however, what has emerged is a much broader distribution of prowess in generating new technology. No single country can be judged to have an overall leadership position. New inventions with commercial potential are springing up in various parts of the world. Often they are spirited away from their sources of origin to countries where factors of production are more favorable.

It is crucial for U.S. agriculture not to ignore this increased activity world-wide in technology creation and diffusion. TRW, a leading technology consulting company, has estimated that by the year 2000, 80 percent of all research breakthroughs and major technological developments will originate outside the United States. Present concerns about U.S. technology being exploited by foreign rivals will tend to be displaced by a desire to gain access to foreign sources of invention. A strategy for this cannot be arranged overnight but must be built up skillfully and in relation to precise domestic needs.

Research on foods and feeds

The face of agriculture and agribusiness is changing dramatically. The drive toward added preparation to achieve higher value is increasing -- no longer the simple commodity, but the partially formulated and, increasingly, the fully formulated product is in demand.

People are living longer. By the year 2000, there are expected to be more than 100,000 people in the United States over the age of 100. The person of 90 in the future will have the physical vigor of today's 55 year old. Low-calorie diets rich in vitamins and minerals are demanded. The consumer quest is for convenience, taste, health, long life and luxury. These various demands lead to a somewhat schizophrenic diet -- on the one hand Spartan; on the other hand, as a self-awarded prize for temperance there is a strong motivation to the gourmet quality of rich foods.

For exploring new ways of making foods the foreign sector is a potential gold-mine. Europe (especially France, Switzerland, and Italy) has a wealth of traditional experience in dairy food products. Asian countries offer expertise in cereals and fermented foods. Often these specialty foods have a highly specific regional origin. It is conceivable that in the United States a myriad of small specialty food companies will appear catering to niche markets. This will occur as conventional food companies restructure and agglomerate into a small number of huge enterprises.

Crop protection is an area of research where new technology will be demanded more and more. This stems from a global concern about the environment and the need to develop biological control products as an alternative or adjunct to chemical pesticides. Natural predators can be used as novel specific biopesticides. Because major U.S. cash crops are of foreign origin, it is logical to seek such biopesticides within the ecosystem where the germplasm originated. Already the Department of Agriculture's Agricultural Research Service (ARS) has research units in Europe, Asia, and South America.

Within the United States regulatory pressures are forcing agrichemical companies to discontinue certain pesticides, notably insecticides, nematocides, and fungicides. Fortunately, foreign countries are available for seeking insects and other biocontrol agents as substitutes. The global pesticide market is about $16 billion; so the commercial incentive is pronounced. Based on foreign explorations, material is becoming available for the next phase of research, namely, molecular genetic manipulation to optimize products. This area of novel biopesticides is an example of what could arise from research collaboration, notwithstanding the competitive elements.

Research on value-added non-food products

There is an increasing interest within the U.S. Department of Agriculture to develop technology to manufacture value-added non-food products from renewable agricultural commodities. This stems partly from the need to find outlets for agricultural surpluses. Another motivation arises from a consumer demand for environmentally benign products such as biodegradable plastics. There is also a strategic importance in having local substitutes at hand for imported materials: some examples are ricinoleic acid from castor oil; lauric acid (for detergents) from coconut oil; natural rubber, at present tapped from Hevea trees grown in tropical countries.

As in the United States, there is a problem in Europe of surplus agricultural commodities. The motivation is increasing in Europe toward planned interactions between agriculture and the chemical industry to utilize renewable raw materials more extensively. Being able to channel its surplus commodities into value-added non-food products for home or export markets would give a country a competitive edge since there would tend to be greater control over commodity prices.

Research within the ARS is focused on soybean oil as a resource for oleochemicals; in Europe there is similar research on other vegetable oils such as sunflower and rapeseed. Some industries that could benefit are: plastics; cosmetics; lubricants; paint; pharmaceuticals; food additives; and detergents.

Starch is another product in surplus within the United States and Europe. Because of public concern about pollution, ARS research is being focused on starch-plastic composites which are biodegradable. In Canada and the United Kingdom work on disintegrable plastic film is well advanced. Another area of common research interest is the development of encapsulating materials from starch for slow release of agrichemicals. This would reduce ground-water contamination. The problem is even more severe in Europe; their technical advances could be relevant for the United States.

International connections

Traditionally, USDA agencies have set up various international connections for different purposes. The Foreign Agricultural Service (FAS) has been successful in creating a network of market and trade intelligence world-wide. The Office of International Cooperation and Development (OICD) has worked with the Agency for International Development (AID) for a number of years. This work has been chiefly in the areas of technical assistance and international training. For example, in close collaboration with the Forest Service, technical assistance is provided to AID natural resources projects world-wide by helping to design, execute, and evaluate a wide range of field projects. The Foreign Currency Research Program is focused on increasing the productivity of U.S. farms and forests, expanding uses and markets for U.S. agricultural products, and reducing post-harvest losses. Benefits of the research are expected to be mutual between the United States and the foreign country. Participants are typically countries such as Poland, Hungary, Spain, Yugoslavia, and India.

Within the ARS, the International Activities office -- in conjunction with the National Program Staff -- directs programs on biological control of insects, weeds, and other pests. This work is carried out in Europe, Argentina, and Korea. Collaborative efforts have been set up recently with the Soviet Union and China. The overseas research laboratories play an integral part in domestic programs, both for ARS biological control research and for state programs. Because of environmental considerations there is mounting demand to find options to chemical pesticides. This has led recently to the creation of an International Centre for Biological Control. This is to be located at Montpellier, France within 'Agropolis," a loosely linked agricultural research and development R&D consortium of government research institutions, universities, and private industries. The Australian Commonwealth Scientific and Industrial Research Organization (CSIRO), the European Community (EC), INRA (the French equivalent of

USDA-ARS) and the Food and Agriculture Organization (FAO, Rome) will form the major part of the Centre. The USDA-ARS, which has essentially been the primemover in motivating formation of this Centre, is seriously considering becoming a member and consolidate its European operations there; USDA-APHIS would be involved too.

In addition, ARS International Activities has a small program in the Netherlands known as the European Marketing Laboratory. This is concerned with analyzing and evaluating American shipments to foreign ports. It contributes to growth in agricultural markets.

Apart from the overseas laboratories, ARS International Activities play a key role in the Binational Agricultural Research and Development program (BARD). The BARD program functions on the income from an endowment fund which was contributed equally by the U.S. and Israel. Research is done on a cooperative basis between U.S. and Israeli laboratories. An example of a successful collaboration is that between the USDA-ARS Crop Simulation Research Unit and the Hebrew University, Jerusalem in developing jointly, and testing a computer model that would reduce the amounts of water and fertilizer needed by cotton farmers to produce their crops. This computer simulation gave rise to COTMOD, a model which describes how water, soil, fertilizer, and farming practice affects the cotton plant.

Among scientists, informal modes of exchange of technical information are common. Personal contacts are made at international conferences often leading to collaborations of various kinds. Such informal channels of information exchange are to be encouraged.

Reserach program strategy

What is missing, however, and yet urgently needed for U.S. agricultural research and development is a global technology intelligence system. The Agricultural Research Service in its role as the internal research base of the USDA, is a highly motivated client for research information and technologies from abroad.

Within ARS, and principally in the post-harvest research area, design of a research game-plan is based on several factors: e.g. product; process; client; economic incentive; and competition. The objective is to induce a frank entrepreneurial attitude among the scientists. Thus, research program strategy is designed on the basis of identifying a <u>product</u> which is expected to emerge from the

research work and which will satisfy a particular need of the consumer. Product selection depends on market intelligence and economic evaluation; information from the Foreign Agricultural Service (FAS) and the Economic Research Service (ERS) therefore is extremely important at this stage. The outline of a process by which the product will be made is designed and optimization possibilities are discussed. A client (industry or action agency) is delineated.

A crucial consideration is competition. This can take the form of a non-agricultural source of the product, for example, a petroleum-based route to chemicals as opposed to conversion (biotechnological or chemical) of agricultural commodities to value-added products. Through process engineering economic evaluation, relative costs of production can be compared in order to judge the potential competitive strength of an agricultural route to the product.

But what can lead to the ultimate destabilizing of a research project directed toward a commercial goal is a blissful ignorance of technology developments in competitor countries. This is where technology intelligence comes into play. It can help a research program designer to optimize a research effort and also aid decisions concerning a timely augmentation or trimming back of a project. Skillfully orchestrated, research and technology intelligence can provide clues as to how technical blockages can be surmounted and technology development accelerated at the home base.

The Japanese have been resoundingly successful in adding to their research base by becoming familiar with research programs, principally in the United States and Europe. Carefully selected foreign research programs leading to specific technologies are targeted. Frequently, the technologies, perhaps apparently unrelated at first sight, are linked, creating the "technology fusion" for which Japan is renowned. Scouting for pertinent research overseas could well be a boon for U.S. agriculture. Not only Japan but also other foreign countries, are utilizing this way of augmenting their domestic research and development programs.

Technology intelligence operations must have a solid base in foreign territory. U.S. research laboratories abroad could provide an ideal springboard, particularly if they are close to foreign research institutions and universities of note. Such an ambience forms a natural confluence of technical information which can be tapped. But to do so, requires special skills.

A scientist responsible for technology intelligence must have a command of technical expertise (for example in modern biotechnology) so as to establish fruitful scientific dialogue with foreign research teams. This person ought to have experience in research program design and management and be closely familiar with research work in domestic programs that could benefit from foreign input. A further necessity is a liaison with technology transfer activity domestically, that is, patenting, licensing, and the industrial interface in general. A facility in foreign languages and knowledge of cultural nuances (gained as a consequence of having lived abroad extensively) would be imperative for successful operations.

In view of Europe 1992 and the concentration of technical and research expertise that this implies, a network of world-wide technology intelligence should be given high priority.

MARKETS FOR U.S. FARM PRODUCTS

Introduction

The high-income industrialized countries of the world continue to be the most important markets for U.S. farm commodities. While it is likely that these countries will remain important outlets for our nation's food and fiber industry in the 1990s, great promise lies in the developing countries which are striving to elevate themselves from poverty and improve the living standards of their people.

These countries account for three-fourths of the world's population and are currently the world's fastest growing segment in terms of population. Provided that they can improve their economies to the point where they can afford more imported food items, the sheer mass of consumers alone will provide tremendous market opportunities for major food exporters such as the United States.

Gauging the potential for U.S. products in centrally-planned economies is difficult. In the past, these countries have tended to be highly erratic in farm product purchases. With the new era of "perestroika", past patterns could be broken in lieu of more stable trends in import demand. However, the outcome of the new policies are not yet clarified.

Trends in consumption

Analysis of historical consumption patterns reveals some interesting trends which should be helpful in planning for the future. Countries of the world that have undergone rapid industrialization and high-income growth in recent years have also undergone a transformation in the amounts and types of food products they import.

Developing countries have tended to move toward a broader product mix, purchasing more of both traditional staple commodities and high-value products such as livestock, dairy, poultry, and horticultural products. However, of the two categories, growth has been strongest for high-value goods as increases in consumer demand fueled by rapidly rising incomes have outstripped growth in domestic production. The European Community (EC) seems to have realized this, as they have historically outperformed the United States in the high-value market. The EC is by far the world's largest exporter of these products with the United States a distant second.

The essence of these trends is that the United States must pay closer attention to macroeconomic developments, policy decisions, and subtle changes in tastes and preferences in markets around the world to realize maximum benefit from export opportunities. In many cases, this means reevaluating the commodity mix of export programs and promotional activities in order to capture new growth markets and expand overall market share.

Deterrents to export expansion

The greatest deterrent to expansion of U.S. trade is the labyrinth of protectionist trade restraints facing U.S. exporters. These include tariffs, import taxes, countervailing duties, import licensing procedures, customs controls and regulations, quarantines, chemical bans, import quotas, outright import bans, and internal agricultural support programs.

This has resulted in costly overproduction and subsidization of exports to markets previously held by the United States. For example, the EC has a comprehensive system of support and protection for agricultural products, especially in the grain-livestock complex. Price supports, set well above world market levels, are provided for grains, milk, dairy products, beef, sheep and goat meat, rapeseed, sunflowerseed, soybeans, pulses, olive oil, sugar, and tobacco. High prices are maintained with import protection combined with export subsidies to producers, processors, and foreign buyers in order to dispose of burgeoning surpluses.

Significant progress has been made by the United States in recent years, both on a bilateral basis and under the General Agreement on Tariffs and Trade (GATT), to improve the international dialogue and to reduce trade barriers. Additional progress in trade liberalization will require world leaders to demonstrate determination to implement meaningful domestic reforms in agricultural policies to set the stage for further development of free trade.

Need for outreach program

A second and important deterrent to expansion of U.S. exports is the lack of trade experience of many U.S. suppliers equal to that of their competitors. As trade restrictions are eliminated and markets become more liberalized, U.S. agribusiness must be prepared to act quickly on these opportunities. Foreign competitors have shown much more acumen in educating themselves regarding foreign marketing expertise and advantageous opportunities than U.S. firms. Less than 10 percent of U.S. companies are engaged in export activities--a figure much lower than that in Europe and other competitor nations.

Active assistance to U.S. firms and state organizations interested in attempting export sales can be provided by the Attache Education Program of the Foreign Agricultural Service (FAS) and the Department's Trade Assistance and Planning Office.

Both the program and the office were authorized by the Omnibus Trade and Competitiveness Act of 1988. The Attache Education Program is designed for Agricultural Attaches, Counselors, and Trade Officers returning from overseas to visit and consult with agricultural producers and exporters throughout the country. Through these consultations, the Attaches, Counselors, and Trade Officers share their knowledge and expertise of specific foreign markets in an effort to increase U.S. exports.

The Trade Assistance and Planning Office serves exporters who need market information as well as those who believe they have been injured by unfair foreign agricultural trade practices. In addition, the office coordinates annual reports to Congress on long-term trade strategy and foreign trade policies. Strengthening the Department's outreach efforts in foreign agricultural trade is a main objective of the office.

For persons who believe they have been injured by unfair trade practices of foreign governments, the office has information on remedies under U.S. trade law. For persons who want assistance in exporting, the office can provide information and help in how to participate in export programs carried out by the Foreign Agricultural Service, the Commodity Credit Corporation, and other Federal agencies. The office also can provide information on export opportunities for U.S. agricultural products as well as foreign government support for exports and trade practices impeding U.S. exports.

High-income countries

High income countries are our most stable markets by virtue of their strong economic bases and ability to import. On the other hand, some are among our fiercest competitors for the world market in many farm products (EC for dairy and wheat, Canada for grains, livestock, and forest products). In addition, many of these markets are at or near maturation for more traditional commodities, which means aggressive marketing strategies will have to be pursued just to maintain export sales in many cases.

For discussion purposes, the high-income countries have been subdivided into two categories; 1) Developed Countries, and 2) Newly Industrialized Countries (NICs) in Asia. The latter, consisting of Hong Kong, Singapore, South Korea, and Taiwan may be classified as developing countries whose economies are far more dynamic than other developing countries.

Developed countries

Sales of U.S. agricultural bulk products to developed countries are significant, particularly soybeans and products (meal and oil) to the EC and Japan. However, high-value agricultural products offer much potential for U.S. exports in both value and volume. On a world-wide basis, both consumer-ready and intermediate high-value products have far outpaced bulk commodities in import growth. While world bulk imports increased only 3.7 percent from 1983 to 1988, high-value product imports rose over 64 percent, to $173 billion, overshadowing total bulk sales of $37.7 billion.

During 1988, the EC alone accounted for 51 percent of total world imports of high-value consumer-ready products and 42 percent of intermediate products, worth $82.6 billion and $24.9 billion, respectively. If present trends continue, these combined markets could climb to an estimated $160 billion by the year 2000.

While a substantial amount of these EC purchases are from other EC countries, the United States can still be competitive in these markets since most high-value products are not subject to variable levies and other prohibitive tariffs. With the U.S. dollar not expected to strengthen siginificantly against EC currencies over the near- and medium-term future, U.S. exporters of high-value products should be able to offer their goods to EC customers at competitive prices.

Japan imported $13.3 billion and $3.6 billion of consumer-ready and intermediate high-value products in 1988. If high import tariffs and quotas can be lowered and inefficient distribution channels streamlined, Japanese imports of these products could easily double or possibly triple in value by the year 2000. Spurred by expected significant increases in real economic growth through the end of the century, rising per capita incomes will continue to shift consumer demand toward health conscious diets, consumer-ready convenience items, and more meat products, especially beef.

Newly industrialized countries

Four countries make up the group of countries commonly referred to as the Asian Newly Industrialized Countries (NICs)--South Korea, Taiwan, Hong Kong, and Singapore. Unlike most mature developed country markets, these markets have just begun to grow, as evidenced by the incredible income growth in the 1980s. In addition, these countries are situated in an overall food deficit region meaning food imports are the only viable solution in the foreseeable future to these consumers' rapidly rising demand. Given the expectation that these countries' income growth rates will be among the highest in the world through the year 2000, future prospects are extremely bright for U.S. export expansion, especially if some of the more restrictive import barriers are removed.

Current demand for agricultural commodities cannot be met by domestic production in any of these countries. Agricultural production requires land, labor, and capital. While labor and capital are available, land as a resource is extremely limited in each country. Agriculture will continue to employ only about 1 percent of the population in Singapore and Hong Kong. In Korea, urban migration will likely continue, as witnessed by the farm sector shrinking from 47 percent of the population base in 1970 to less than 20 percent in 1988. The NIC's governments will likely continue to channel capital to sectors that have the most competitive advantage for overall economic growth, such as manufacturing.

The most promising products for U.S. export growth appear to be consumer-ready high-value products. During the 1980s, consumption and import patterns have been shifting more and more toward this product sector as these countries' economies became more robust and the trend toward industrialization and urbanization continued.

Evidence of this trend is provided by the 11 percent average annual growth rate registered in high-value product imports for the period 1980 to 1988. However, U.S. share of high-value product exports to these countries dropped to 16 percent in 1988 from 21 percent in 1985. In contrast to the impressive high-value product performance, the NICs bulk commodity imports gained by an average of only 3.2 percent per year during the 1980-1988 period.

Developing countries

Low-income countries, more commonly referred to as "developing countries", make up the largest segment of the world's population, and hence offer great opportunity for long-term expansion. However, many of these nations are beset with staggering debt problems and unstable economies. They range from the extremely under-developed (e.g. Sub-Saharan Africa) to those in various stages of industrial development (e.g. the ASEAN nations, India, and Brazil).

While these countries offer the greatest long-term opportunity for market expansion, they have suffered the most in the 1980s from the depressed economic conditions mentioned above and are likely to be the group that suffers the most economically in the near term. Overall agricultural imports from the world fell for developing market economies by $2.4 billion a year during the period 1982-87. However, imports in 1988 increased 19 percent from the previous year. This increase can be attributed to population growth, stabilization of debts, increases in government-sponsored export programs, and stable oil prices.

Need for economic growth

Given the current environment in developing countries, a key determinant for future market opportunity for U.S. farm products to these countries is their future overall macroeconomic performance. The United States has much to gain by encouraging growth in per capita income in these countries. Economic development brings about improved standards of living, rising incomes, increased food consumption, and new markets for U.S. agricultural products.

Positive factors in the developing countries' outlook are income and population growth. Income growth is expected to more than match the rapid expansion in population anticipated for this group of countries. Although income and population growth are usually associated with increased import demand, translating these factors into effective import demand will be heavily dependent on their ability to deal with the overwhelming debt problem.

The seed of most of the debt problems of developing countries was planted when world oil prices escalated sharply in 1970s. This in turn put upward pressure on prices of many commodities exported by the LDCs. In an effort to catch up with the developed world, the LDCs pursued expanded social and economic development activities based on expected revenue flows from increased export earnings.

The world recession of the early 1980s depressed commodity prices (agricultural and non-agricultural) and hence export earnings. In spite of this downturn, some LDCs remained committed to previous social and economic development plans which suddenly were too expensive to maintain. Rather than drastically reduce spending, they opted to borrow heavily from international lenders, thus increasing their debt obligations.

Heavily debt-burdened countries represent some important agricultural export markets for the United States. Nowhere is the trade-debt link more evident than in Latin America, where the debt owed to international creditors is even larger than during the repayment crisis in 1982, when their world debt stood at $894 billion. By the end of 1988, it had reached $1.2 trillion.

This debt crunch has had a direct impact on agricultural trade. U.S. agricultural exports to Latin America since 1981 have declined by more than $3 billion. In 1988, Mexico and Brazil accounted for nearly a fifth of the debt. Together, they received 6 percent of total U.S. agricultural exports, ranking 3rd and 60th, respectively, in importance as U.S. agricultural market outlets. Since 1981, agricultural exports to these two countries, combined, have fallen by $1.7 billion.

Non-market countries

The non-market countries are the centrally-planned economies of the world. They include the Soviet Union, the countries of Eastern Europe, and the People's Republic of China. Unlike countries that depend primarily on the marketplace to dictate demand, these economies depend on central planning agencies within their governmental bureaucracies to determine the level of demand. While import demand for agricultural products among this group has been strong at times during the past two decades, it has been highly erratic with imports occurring principally in years when these countries experience severe crop short falls. The recent reforms undertaken in the agricultural sectors of the Soviet Union/Eastern bloc countries may lead to expanded trade, as they appear to be aimed at moving toward more market-oriented economies.

Soviet Union

The Soviet Union is the primary economy within the Eastern Europe trading bloc. In the past, Soviet imports have been highly erratic, with purchases concentrated mostly in bulk commodities, especially wheat and corn. The promise of market opportunity is great, however. For example, the Soviets opened their country to the first American style fast-food restaurants in 1988. If this trend continues, there is room for U.S. export expansion in a broad range of high-value products that serve this industry.

If 1989 is any indicator of the Soviets' future purchasing strategy, the move toward more high-value products may have already begun. The Soviets signed a contract earlier this year with U.S. poultry exporters to buy 15,000 tons of U.S. poultry meat (chicken leg quarters) to be delivered by the end of calendar year 1989. The Soviets also purchased a substantial quantity of U.S. butter in 1989. With the emphasis on improving the Soviet diet, the need to import more high-value products should continue. Import demand for protein meals and feed grains should also continue to grow as the Soviet Union expands its livestock and poultry industries.

Given the current attitude of Soviet purchasing organizations, future expansion of U.S. agricultural trade with the Soviet Union will likely depend on U.S. willingness to open its markets to Soviet agricultural and non-agricultural products. A combination of a decline in availability of foreign exchange and closer Soviet scrutiny of trade imbalances with the United States has brought about increased pressure for countertrade and purchases of Soviet goods. This could present the United States with a future dilemma, because some of the agricultural products that the Soviets would like most to export to the United states are protected industries. A case in point is the U.S. furskin industry, specifically mink skins. Although the embargo on mink furskins into the United States from the Soviet Union was removed by the Omnibus Trade and Competitiveness Act of 1988, the duty imposed is 25 percent.

Assuming agreement can be reached on two-way agricultural trade between the United States and the Soviet Union, the outlook for commodity exports to the Soviets looks promising. Overall grain imports should remain close to current levels over the near term, since a new U.S.-Soviet grain pact was concluded in 1988. The agreement calls for Soviet purchases of 9 million tons of U.S. grain per year over the next two years. The Soviets are also expressing increased interest in U.S. livestock genetics--particularly dairy cattle, biotechnological applications, agricultural chemicals, and agricultural processing and storage technology.

The intensive technology program for producing small grains, especially wheat, appears to be successful. Higher yields have been achieved in the face of unfavorable weather. Bonus price incentives to producers for high quality wheat have helped to increase the availability of milling quality wheat and durum, which are needed to improve the variety and quality of baked goods and pasta products. In addition to satisfying domestic needs, one of the goals of this program is to provide high quality wheat to export to other countries. If a suitable transportation system can be put into place, this goal seems plausible.

The Soviet leadership continues to strive to put more meat and dairy products on the table. Protein-deficient feed rations are a major impediment, with frequent reports that the deficit is about a third of what is needed. Soviet demand for protein should rise over the long-term as the Soviets strive to improve the diets of their people through more productive herds and improvement in genetic stock. This also augurs well for Soviet demand for feed grains, as herds will require higher quality feed.

Gorbachev's drive to lease land to groups of farm workers is seen as an attempt to increase productivity and to reduce losses. Regardless of whether the leases pertain to crops or to collective farms, there will be a serious need for all kinds of equipment and facilities suited to the smaller units. This is in addition to processing, transport, storage, and distribution facilities which are crucial to Gorbachev's plan to improve food supplies for his people.

West European countries can be expected to secure much of the business to provide equipment, technology, and other inputs to the Soviet Union to improve its agro-industrial sector. The availability of credit which has already been extended is one factor in favor of the Europeans. The U.S. statute (Trade Act of 1974) which sets the criteria for giving the Soviet Union most-favored-nation status is another factor favoring the Europeans.

Eastern Europe

Until very recently, the reforms introduced over the last few years had brought little change in Eastern Europe. In general, the region's economy is still suffering from low economic growth, high inflation rates, and large foreign debt. By year-end 1988, the region, as a whole, had convertible currency debts equal to $129 billion, up from $84 billion in 1984. The partial implementation of certain policies has caused more confusion than improvement. Social tension in many of these countries has led to serious labor strikes and conflicts.

Growth in food imports has been variable--but for the most part negative--during the 1980s. Between 1983 and 1988, Eastern European imports from all sources (excluding tropical products) fell by over $136 million. Most of the drop was in bulk commodities, which is where most of these countries' imports are concentrated. On a more positive note, U.S. agricultural exports to the countries of Eastern Europe rose to $529 million in 1988 increasing by $107 million from 1987, with gains to Poland, Bulgaria, East Germany and Romania more than offsetting losses to Czechoslovakia, Hungary and Yugoslavia. The largest gain was to Bulgaria, up $49 million, with the increase concentrated in bulk commodities.

President Bush's visit to Eastern Europe this summer stimulated much interest in the region's economic, financial and political situation to the U.S. business community. However, the potential for the United States to increase its exports to East European countries continues to be somewhat limited. In some cases these exports are heavily dependent on the U.S. ability to extend credit guarantees through the GSM-102/103 programs.

A recent development in one East European country--Poland--is the use of food aid to support the demand for economic and political changes in that country.

Eastern Europe's pressing need is still to expand their exports to earn hard currency, which, in turn, requires improving competitiveness. Other factors affecting import demand include a population growth rate that is contracting to zero, real GDP growth that is likely to remain under 2 percent, and economic and political policy aversion to imports from the West, particularly for value-added products.

The changing face of Communism in Eastern Europe could break the erratic patterns of farm product purchases and result in more stable demand patterns in the 1990's. However, the outcome of current events and their future impacts on agricultural trade are highly uncertain at this point.

People's Republic of China

After a lull in trading activity during the early and mid-1980s, the People's Republic of China's involvement in agricultural trade has rebounded sharply. China's exports of agricultural products climbed to $7.7 billion in 1988--up 8.5 percent from 1987. China's imports of agricultural products jumped an even sharper 27 percent to $4.2 billion. This import increase is mainly attributed to larger purchases of fertilizer, sugar, cotton and wheat. As a result, China's agricultural trade surplus in 1988 fell to $3.5 billion from $3.8 billion in 1987 (excluding tropical products).

U.S. agricultural exports to China showed a hefty increase of 110 percent in 1988 to $759 million from the previous year. Wheat sales for which bonuses were paid under the Export Enhancement Program accounted for much of the boost in exports. U.S. exports of forest products also grew a robust 106 percent in 1988 over 1987 levels.

The social and political turmoil that has spread throughout China since April 1989 may affect China's trade performance for the next few years. According to recently released Chinese statistics, China lost up to $100 million in export revenues daily during the height of the crisis. Lost earnings are estimated at $1 billion in the first two weeks of June and exports for the latter half of June were slightly lower than usual, suggesting that these losses may not be made up even though rail lines, ports, and Chinese trade offices are back to normal operations. On the import side, China's concern that its foreign exchange reserves may drop as a result of the deteriorating trade balance and foreign investment inflows could lead to additional controls on the use of foreign exchange for imports. Beijing is more likely to control imports of consumer goods and industrial equipment than grain and agricultural products.

Following the June crackdown, Deng Xiaoping reiterated his commitment to pursue economic reform. However, the main elements of China's market-oriented reform program have already been stalled for almost a year. Key reforms such as price decontrol and bankruptcy are likely to be postponed indefinitely.

The value of China's agricultural output increased about 3 percent in real terms in 1988. Most of the increase was accounted for by expansion of sideline industries, such as poultry and fishery operations, and a sharp increase in the production of cash crops such as tobacco and silk. Grain production fell 2 percent in 1988 to 394 million metric tons, 16 million tons short of target. As a result, China imported 15 million metric tons of grain--primarily from the United States and Canada.

LONG-TERM EXPORT STRATEGY

Overview during the 1980's

The United States has recouped some of the losses experienced in agricultural product exports during the early and mid-1980's, thanks to a new, more market-oriented farm policy and a depreciating U.S. dollar relative to currencies of several major trading partners. In fiscal year 1989, the United States continued to expand its already strong balance of agricultural trade.

The spread of agricultural technology throughout the world has resulted in expanded production, increasing self-sufficiency, and the resulting stagnant or shrinking market for many of the basic bulk commodities. An additional consequence of the diffusion of technology has been the entry of non-traditional subsidized competitors into the world marketplace. The effect of these new entrants has been increasingly fierce competition for a share of the world export market.

Poor economic performance and external debt problems in some developing countries have hampered their ability to generate enough hard currency earnings to import agricultural products. This problem is most pronounced in Latin America and Africa, which had been strong growth markets in the 1970's.

Despite the low growth in world trade in bulk commodities during the 1980's, the United States has staged an impressive comeback during the past two years in the export of these products. Much of the recent gain is attributable to a lower valued dollar and changes mandated by the Food Security Act of 1985, which resulted in an overhaul of the farm commodity price support programs to make them more responsive to world market prices, and to the implementation of two new programs (Export Enhancement Program and Targeted Export Assistance Program) to assist U.S. agricultural exporters in combating unfair foreign competition in key markets. In addition, the full use of export credit guarantee programs has contributed to increased exports.

As economies around the world have improved, their consumers have sought dietary improvements and a better standard of living. This has resulted in changing consumption patterns and a gradual shift in import demand to a food basket that includes more high-value products, such as red meats and horticultural products. In fact,

world trade in high-value products has grown consistently since the early 1970's and is now at a record $173 billion. Likewise, U.S. exports of these products reached a record level of $16.4 billion in fiscal year 1988. Growth has been most pronounced in the high income countries and the Newly Industrialized Countries of the Pacific Rim.

The decade of the 1980's may be characterized as one of abundance: Record global grain production and consumption levels were reached nearly every year. Global grain trade fluctuated in a relatively narrow band, but at an average annual level nearly 40 percent higher than trade in the previous decade. Import demand was fueled largely by rising Soviet and Chinese import needs, whereas export supply was provided by the United States and record, subsidized EC exports, largely at the expense of Argentina and Australia.

Recent events in the Soviet Union and Eastern Europe also bring great promise for expanding opportunities for U.S. agricultural exports. Growing markets for everything from bulk commodities to high value meat, poultry and dairy products may develop in these countries as they become increasingly open to new ideas and products of all kinds.

Outlook for 1990

Fiscal 1990 U.S. agricultural exports are expected to decline to $38 billion, a $1.7 billion drop from fiscal 1989. Lower prices for most grains and oilseeds largely account for what is expected to be the first decline in export value since fiscal 1986. Export volume is forecast to remain near its fiscal 1989 level, as a substantial decline in wheat exports is partially offset by gains in corn, soybeans, cotton, and high-value products.

U.S. agricultural imports are forecast to decline slightly to $21 billion, $500 million below fiscal 1989's record high. The U.S. agricultural trade surplus is expected to total $17 billion.

Grain and feed

World wheat trade for 1989/90 is currently forecast at 97.3 million tons, down from 1988/89. A combination of some improvement in crop prospects in the major importing countries and slower than expected early-season purchases have resulted in some downward adjustment in the expected level of world wheat trade.

Global coarse grain trade at 99 million tons is forecast to be nearly 5 million tons higher than last year in response to stronger demand from the USSR and a global shortage of feed-quality wheat. However, demand for corn

outside the USSR continues to stagnate as major importing countries shift to other less-costly feed grains or non-grain feed ingredients. Other countries are importing more finished meat products at the expense of their own domestic feedgrain-based livestock industries.

Oilseeds and products

The soybean production increase of 25 percent in 1989 is expected to lead to an increase in soybean exports of about 8 percent. Soybean exports would still be below recent years and would be about 10 million tons below the record reached in 1981/82. Export value is also expected to decrease slightly as price declines more than offset volume increases.

Dairy, livestock and poultry

U.S. exports of livestock, dairy and poultry products are forecast to increase by a further 1.5 percent in fiscal 1990, to $6.7 billion, following on the heels of the strong 8.2 percent expansion of fiscal 1989. Much of the export growth is due to the opening of new markets in the increasingly affluent countries of the Pacific Basin. Hard-fought initiatives to reduce trade barriers have transformed Japan into the top foreign market for U.S. beef. Ongoing efforts seek to duplicate this success in South Korea, and to build markets in other Asian, Pacific and Middle Eastern countries for U.S. meat, poultry and dairy products. The U.S.-Canada Free Trade Agreement also provides a basis for expansion of U.S. livestock and product trade with Canada.

Although financial constraints will limit their capacity to import, the countries in Eastern Europe and the Soviet Union hold renewed promise as markets for U.S. animal product exports. Pork bellies were included in the initial shipments to Poland as part of the U.S. aid package. Breeding livestock and other animal genetic materials should find ready acceptance as these countries increasingly seek to upgrade their diets. As traditionally large consumers of animal products, the countries of Eastern Europe and the Soviet Union may become significant long-term markets for high value U.S. livestock products. These markets may become all the more important if the European Community continues to impose unfair trade constraints against U.S. beef and other animal products.

Horticultural and tropical products

Horticultural product exports are expected to rise to record levels of $4.4 billion, up about $240 million from 1989. The expected increase is attributed to larger exports of fresh and processed fruits and vegetables, tree nuts, wines, and malt beverages. Continued strong demand from the Pacific Rim countries, especially Japan and the Asian NICs, is the major reason behind this projected growth.

Tobacco	For fiscal year 1990, U.S. unmanufactured tobacco exports are expected to reach 215,000 MT, an increase of 1 percent from 1989, as export demand for quality U.S. leaf remains strong. U.S. cigarette exports are expected to reach 130 billion pieces as markets in Asia, particularly Japan, continue to grow.
Cotton	The operation of the marketing loan, coupled with reduced foreign export supplies indicate that U.S. exports of cotton may reach 7.6 million bales in fiscal 1990. The new provision of the 1990 upland cotton program setting acreage reduction (ARP) at 12.5 percent of base acreage (1989's ARP was 25 percent) will also provide impetus to U.S. cotton exports.
Seeds	U.S. exports of planting seeds are expected to register another record in fiscal 1990, up 6 percent to $525.0 million from fiscal 1989's $497.0 million. However, the gain could be solely due to the inclusion of sunflower and wheat seed in the data for the first full fiscal year. Together, these items are expected to account for at least $50.0 million of the projected fiscal 1990 total of $525.0 million.
Solid wood products	The outlook for exports of solid wood products for 1990 is for no substantial change in overall volume and a small increase in export value, principally as a result of increased prices. Shipments to major Western European trading partners are expected to be stagnant due to probable rising interest rates and slightly lower overall growth. Shipments to Pacific Rim markets may level off in 1990 as a result of a build up of imported timber products in 1989, particularly in Japan, and the political/economic instability in China.
Total agricultural trade outlook	Japan will continue as the No. 1 market for U.S. farm products in fiscal 1990, with exports to that country forecast to be up marginally from fiscal 1989's $8.152 billion total.

Table 3: U.S. Agricultural Trade, Fiscal Years 1985-90

	1985	1986	1987	1988	1989	1990(f)
	---------- Billion Dollars ----------					
Exports	31.2	26.3	27.9	35.4	39.7	38.0
Imports	19.7	20.9	20.6	21.0	21.5	21.0
Trade Balance	11.5	5.4	7.3	14.2	18.2	17.0
	----------Million Tons----------					
Export Volume	125.8	109.9	129.3	148.4	147.8	145.5

Source: Outlook for U.S. Agricultural Exports, November 28, 1989.

Table 4: Major U.S. Agricultural Export Markets, Fiscal Years 1989-90

	FY 1989 $ Billion	FY 1990 (f) $ Billion	Change (in percent)
Japan	8.2	8.2	--
EC-12	6.6	6.1	-8
Soviet Union	3.3	3.2	-3
South Korea	2.5	2.5	--
Mexico	2.8	2.4	-14
Canada 1/	2.2	2.2	--
Taiwan	1.6	1.5	-6
China (PRC)	1.5	1.2	-20
Egypt	1.0	1.0	--
Iraq	0.8	0.9	+13

Source: Outlook for U.S. Agricultural Exports, November 28, 1989.

1/ In recent years, U.S. agricultural exports to Canada have been underreported by an estimated $1 billion. This discrepancy is officially recognized by both governments.

Agricultural export strategies for the 1990's

The United States should enhance its competitive position to retain and expand world agricultural market shares. During the past several years, U.S. competitiveness has improved as a result of (1) lower U.S. price support loan rates (reduced U.S. prices), and (2) meeting unfair competition with the Export Enhancement Program (EEP) and the Targeted Export Assistance (TEA) Program. These two actions have gone far in returning the United States as a highly competitive exporter in international markets and will be continued through the end of the current legislation. Other more general trade enhancements and activities have been continued, and will persist even if the necessity for the EEP and TEA programs is ended.

Traditional trade enhancement activities will continue to help U.S. exporters develop and maintain markets overseas for hundreds of food and agricultural products, ranging from bulk commodities to brand-name grocery items. In addition to commodity subsidies to help U.S. exporters meet subsidized competition, the programs include multilateral and bilateral trade negotiations, commercial credit guarantees, long-term, low interest credits for low income country markets, and support for private sector promotion and trade servicing activities.

Reducing trade barriers

A primary goal of the United States during the current "Uruguay Round" of multilateral trade negotiations (MTN) is to liberalize trade in agriculture. The United States submitted in 1989 a proposal wherein: (1) All non-tariff import barriers would be converted to tariffs and, along with pre-existing tariffs, would be reduced over time; (2) export subsidies would be phased out over five years; (3) the most trade distorting forms of domestic support would be phased out in 10 years (less trade distorting forms of support would be permitted, but subject in some cases to new disciplines); and (4) notification, consultation and dispute-settlement procedures concerning sanitary and phytosanitary measures would require the use of sound scientific evidence in developing health-related measures.

The main trade enhancing programs--EEP, TEA and GSM-102/103--will be re-assessed along with all other agricultural support programs at the end of the Uruguary Round of the GATT.

Promotional efforts will need to be supported by work on removing the very substantial barriers to fair trade in imported food products which exist in most countries. This will require constant effort on the part of U.S. trade officials, supported by U.S. Department of Agriculture staff advising them on the establishment of negotiating priorities.

Maintaining the work of counselors, attaches and trade officiers

To meet this competition, the Department of Agriculture will need to maintain its counselor and attache posts and trade offices overseas, and continue its involvement with the private sector in maintaining and expanding overseas markets for U.S. products. The mixture of assistance to non-profit organizations and to private firms will need to be maintained, to assure that promotion moves from the introduction of the product to the trade and the general public through to actual sales of goods off the shelf.

Trade offices in 15 key market countries will need to continue to function as service centers for U.S. exporters and foreign buyers seeking market information. U.S. agricultural trade offices provide foreign buyers with up-to-the-minute computer communications with potential suppliers in the United States. They also will assist U.S. exporters in launching products in overseas markets characterized by different food preferences, social customs and marketing systems.

The Department will need to continue operations on a worldwide basis, covering agricultural market developments in more than 100 countries. Its overseas staff must be backed adequately by analysts, negotiators and marketing specialists located in Washington, D.C.

Trade servicing

One of the EC's most effective nonfinancial trade enhancing measures is its ability to provide extensive trade servicing. USDA has taken a number of steps to improve its ability in this field, e.g. to enhance the work of agricultural counselors, attaches and trade officers overseas by providing technical assistance, training and demonstrations for purchasers. It also has increased assistance to overseas buyers by providing additional information about U.S. standards, as well as conducting an active commodity quality monitoring program.

Through new outreach efforts, FAS is making trade services more widely known--particularly to potential exporters. Information on specific countries, such as trade policies and market opportunities, help exporters locate the best market prospects. Services such as trade leads, importer lists, country market profiles, product publicity, product reviews, and trade shows help exporters find buyers, and develop and maintain markets abroad.

FAS/Cooperator market development program

Nonprofit commodity trade associations continue to provide great assistance to producers and the trade in terms of information, demonstration programs, and on-site assistance throughout the world. Overseas promotion work carried out jointly by some 50 cooperator groups and FAS promote U.S. products ranging from soybeans to leather to logs.

Cooperator projects acquaint potential foreign customers with U.S. agricultural products to show them how these products might be used to their benefit. This helps create or stimulate demand for U.S. exports.

FAS and the cooperators share the financing of these projects, which are carried out by the cooperators under FAS supervision. These and other market development projects are supported by trade targeting and analysis of areas where attempts to expand trade may be attempted with a reasonable degree of chance for success. These efforts are conducted by commodity and country specialists in FAS Washington with the assistance and active participation of members of the attache service.

Credit programs

CCC credit guarantee programs are designed to improve the competitive position of U.S. agricultural commodities by reducing the risk faced by firms exporting to world markets where financial institutions would otherwise be unwilling to finance exports. The export guarantees are targeted primarily toward developing countries, taking into account the countries' credit needs and creditworthiness.

In fiscal year 1990, it is anticipated that all of the $5.5 billion available for credit guarantees will be announced for designated countries. In addition, the rapidly changing market environment in Eastern Europe will require continuing assessment to determine potential credit needs and opportunities in that market. Over the long term, there may be consideration given to increasing credit guarantees to take advantage of market expansion opportunities for U.S. agricultural products.

Commodity-specific strategies:

Grain and feed	To achieve the export goals for grains the United States will have to increase its competitiveness with other exporting nations. This will be achieved through a combination of efforts. U.S. commodity programs will need to encourage the free market production of domestic grains in sufficient quantity and quality at competitive prices to not only meet domestic needs but to successfully meet export target levels. Success is also needed at the Uruguay Round of multilateral trade negotiations in order to eliminate or reduce unfair trade practices that severely reduce U.S. grain exports. The aggressive use of export promotion programs like the EEP and TEA programs will probably have to be continued to allow U.S. grains to compete fairly in world markets. The major problem of unfair trade competition as related to grains is the grain trading practices of the EC. These practices are a complex system of import levies, production subsidies, and export subsidies that severely restrict U.S. grain exports to the EC and to third country markets. The expansion of U.S. grain export will also require the improvement of trade servicing. Increased assistance to overseas buyers will be provided by supplying information about U.S. grain standards, providing technical assistance, training, and demonstrations for purchasers. The efficient development and implementation of Cooperator market development programs will also be used to acquaint foreign customers with U.S. grain products and how they can best be utilized for their use.
Oilseeds and products	Oilseed export goals will be met by a combination of increased domestic production and market development efforts. More flexible farm programs will enable production of many oilseeds to increase from recent low levels. The increased production will meet increasing domestic requirements while allowing increasing amounts for export. Credit programs and market development activities will be utilized to regain old markets and to develop new ones.
Dairy, livestock and poultry	Although success in the Uruguay Round is as crucial to the long-term export performance of U.S. dairy, livestock and poultry (DLP) products as for any other commodity group, a number of ongoing bilateral negotiations are aimed at opening new markets for animal product exports, especially in the dynamic economies of the Pacific Rim. Important discussions are being held to reduce trade barriers in Taiwan for U.S. poultry and beef, in South Korea also for beef, and in Australia and New Zealand for U.S. poultry.

In addition to creating new opportunities for exports for U.S. agricultural products, successful negotiations in these and other country and product areas could partially offset trade deficits in nonagricultural products, while serving to lower overall trade tensions for the United States.

In response to new opportunities and changing market conditions, DLP marketing initiatives will be increasingly directed toward Asia and the Pacific, the Middle East and to Canada. In anticipation of a further tightening of resources available for marketing activities, ongoing efforts to obtain maximum results from available resources will become all the more important. Targeted Export Assistance (TEA) and cooperator market development activities are being more sharply focused, with particular emphasis on branded product promotions in the most promising, individually selected country markets. The most efficient and effective utilization of resources will be an even more important objective of DLP marketing activities.

Credit programs will continue to increase in importance as an adjunct to market promotion efforts. The focus will continue to be on countries where rapidly growing populations will place increasing pressures on limited resources. Eastern Europe and perhaps the Soviet Union may become important credit customers if positive changes currently under way within their governments and economies continue.

Horticultural and tropical products

For high-value commodities in the horticultural sector, continual support against unfair competition will be essential to maintenance of market shares, particularly in Europe. In the Pacific Rim, opportunities continue to increase as per capita disposable consumer incomes climb still higher. The challenge often is from newcomers, such as the Chileans, or from domestic farm groups which have been shielded from modernization and hence stand to lose from liberal import policies. In the latter situation, bilateral trade talks and GATT proceedings must be ongoing. Everywhere, food safety issues pose tremendous hazards and calamitous losses to the unwary, and often even to those who have tried to do their homework. Overall, the picture for horticulture is reasonably bright, thanks to the competitiveness of U.S. producers and the efficiency of the U.S. distribution system.

Cotton

To achieve the goal of 8.8 million bales of exports by the year 2000, U.S. policy-makers should continue to provide the industry with market-oriented price and production policies:

Commitment to previous attempts to make the cotton program more market oriented should be maintained; the marketing loan feature of the traditional non-recourse commodity loan program has been successful in allowing U.S. growths to be more competitive both domestically and overseas.

Commitments to research and development should be maintained. It is primarily through the work of agricultural scientists that the U.S. has developed a technological edge over other competitors. Research and development is especially important in view of the United State's current agricultural labor problems.

Additionally, market development activities should be maintained to encourage foreign spinners to purchase more U.S. cotton through trade servicing, trade and consumer advertising, public relations, and trade team activities.

GSM 102/103 export credit guarantee programs have also been successful in opening and maintaining exports of U.S. cotton. Opportunities for additional credit programs may arise as a result of political developments in Eastern Europe.

Seeds

Planting seeds as a group need little overt assistance to maintain markets or achieve nominal export growth rates from year to year. The industry enjoys a very active, resolute, highly visible association that fully understands industry interests and defends them vigorously. The assistance required by the industry lies in the areas of (1) trade policy and (2) foreign market development.

In the area of foreign market development, ongoing programs should be continued. Program standards should remain high to assure the best possible results from trade servicing and trade policy activities.

In the trade policy area, the policy of informing industry about current and potential problems, seeking industry input concerning priorities and methods of dealing with those issues, and actively seeking their resolution should be continued. Greater emphasis will need to be placed upon identification and resolution of potential problems before exports are negatively affected.

High value products

Exports of a select group of consumer-oriented high value products have grown substantially over the past two decades. Their total value stood at $2.2 billion during the base year of 1987. Particularly noteworthy growth areas have included prepared breakfast foods; breads, biscuits and cakes; edible offal and dried meats; frozen vegetables; chocolate and products; non-alcoholic beverages; cider; beer, ale, porter and stout; and essential oils.

Both the decline of the dollar against key developed country currencies and the expansion in government support for food product promotion under the TEA Program have fueled recent growth in consumer-ready product sales overseas. However, trade barriers to processed food products remain very high, and competition both with domestic suppliers operating behind tariff and non-tariff barriers, and with third country suppliers benefiting from the spread of advanced food processing technology guarantee that the trading environment for these products will remain intensely competitive.

Solid wood products

The two principal factors affecting U.S. exports of solid wood products in the past decade were: (1) availability of export promotion and (2) sharp fluctuations in the strength of the dollar. Exports dropped from a high of $3.7 billion in 1980 to a low of $2.7 billion in 1985 before surging to a projected $5.9-6.0 billion in 1989. Meanwhile, imports increased each year with the exception of 1982 and 1988. Consequently, the trade balance deteriorated sharply from a slight surplus in 1980 to a negative $2.2 billion in 1985 before rebounding and ending the decade with another small surplus in 1989. The average, annual trade balance for the decade was almost a negative $0.9 billion.

Expansion of solid wood product exports in the 1990's will require a two-prong plan of action: (1) removal of foreign import restrictions, and (2) expansion of export promotion activities. The most important trade policy issues facing solid wood products are: (a) the Uruguay Round where the U.S. hopes to persuade other GATT participants to include forest products in the agricultural negotiations, (b) the Super 301 with Japan, (c) the EC 1992 harmonization of standards, and (d) the harmonization of Canadian and U.S. standards for plywood. The United States is working to obtain successful agreements in each of these negotiations.

The principal goals for expanding export promotion for solid wood products could include full use of the Cooperator and TEA programs, greater use of the GSM-102 three-year credit guarantee program--while complying with international obligations, and better use of other available export programs, including Title I of PL 480.

U.S. food aid programs

U.S. programs providing food aid will continue to address multiple objectives encompassing humanitarian food assistance, market development, economic development and foreign policy considerations. Food aid funding levels should be sufficient to meet urgent humanitarian food needs and fulfill the 4.47 million metric ton commitment of the United States to the Food Aid Convention.

From a market development perspective, food aid provides a "first" exposure for many future customers of U.S. products. It is exceedingly important, therefore, that product quality, trade assistance, and product prices of U.S. agricultural commodities promote the integration of the commodities into the countries domestic trade channels. As P.L. 480 countries emerge as commercial buyers for specific commodities--as did Korea, Taiwan, Portugal and many others--they will continue to be a market for U.S. source commodities.

BUDGET PROPOSALS FOR THE INTERNATIONAL PROGRAMS OF THE U.S. DEPARTMENT OF AGRICULTURE

Summary of FY 1991 Proposals

A total program level of $8.2 billion is proposed for FY 1991 for the major international programs and activities of the U.S. Department of Agriculture. This represents an increase of just over $276 million from the program level currently estimated for these activities during FY 1990.

The FY 1991 President's budget provides increased program levels for the Foreign Agricultural Service, the Office of the General Sales Manager, and the Export Enhancement Program, while the program levels for P.L. 480 foreign food assistance and the Office of International Cooperation and Development will be somewhat reduced from FY 1990. CCC export credit guarantee and the Targeted Export Assistance programs will continue unchanged from current levels during FY 1991.

As with other budgets submitted in recent years, these proposals continue to be based on three primary considerations. First, they continue the policy adopted with enactment of the Food Security Act of 1985 of restoring U.S. agricultural export competitiveness and regaining overseas markets for U.S. commodities and products. The 1985 Act strengthened the Department's export promotion activities in order both to assist American agricultural producers during the period of transition as U.S. farm programs became more market oriented and to regain export markets which had been lost prior to 1985. These FY 1991 proposals continue the export emphasis of recent President's budgets.

Second, these proposals acknowledge that the United States continues to face unfair trade practices in the international marketplace, including export subsidies and import barriers. These FY 1991 proposals for the Department's international activities, and for EEP and the Targeted Export Assistance in particular, are designed to continue recent policy of meeting the challenge posed by these practices which disadvantage U.S. producers and exporters. Agreement on international agricultural policy reform during the Uruguay Round negotiations as proposed by the United States could lessen the need for these export promotion activities and allow some of them to be phased out; however, these FY 1991 budget proposals were developed based on the fact that agreement has not yet been achieved.

Third, these proposals are tempered by the need to reduce Federal outlays in order to meet the deficit target established for FY 1991 by the Balanced Budget and Emergency Deficit Control Act of 1985, as amended. While major program level reductions are not proposed for the Department's international activities, budgetary constraints have necessitated that most of these programs be held near FY 1990 levels.

Five and Ten Year Budget Recommendations

Section 4201 of the Omnibus Trade and Competitiveness Act of 1988 requires this report to include recommended levels of spending for the international activities of the Department for five and ten-year periods in addition to those for the current budget year. For those programs subject to annual appropriations, the FY 1991 budget includes two alternative estimates of projected spending levels for the next five years. For most non-appropriated programs, only the second of these two estimates is developed.

The first of these estimates projects future spending levels based on a "current services" formula. This formula provides for annual budgetary adjustments based on projected levels of inflation during the five-year period; it is intended to forecast what budgetary resources are required in order to ensure that program activities are continued at current levels.

The second estimate projects levels of spending based on "policy" considerations for each program. Because of the need to reduce the Federal deficit in order to comply with the targets established in the Balanced Budget and Emergency Deficit Control Act of 1985, as amended, the policy estimate for most of the Department's international programs and activities maintains their annual program levels relatively unchanged from FY 1991 throughout the five-year period. Program levels for FY 1992 and beyond will, of course, be reconsidered each year when the President's budget is developed.

The FY 1991 budget does not extend these estimates over a ten-year period. However, for purposes of recommending levels of spending through FY 2000 for this report, it can be assumed that the methodology used to develop the five-year estimates would be extended throughout the period. Thus, the current services estimate would provide for annual inflationary adjustments to maintain programs and activities at current levels, while the policy estimate would maintain spending relatively unchanged thoughout the ten-year period.

Any budgetary recommendations for the Department's international programs and activities beyond FY 1991 must be considered highly tenuous for several reasons. First, the continued need to reduce the Federal budget deficit will require an intensive review of all of these programs each year as the annual President's budget is prepared; recommended levels of spending could change considerably from year to year. Second, agreement on international agricultural reform during the Uruguay Round negotiations can be expected to provide for a phase-out of some of these activities. The exact timetable for their phase-out will be determined during the negotiations.

FY 1991 Budget Proposals
Major International Programs of the
U.S. Department of Agriculture

Program Level Summary
(Dollars in Millions)

Summary of Resources	FY 1989 Actual	FY 1990 Estimate	FY 1991 Request
Foreign Agricultural Service.....	$95.1	$101.3	$103.5
Office of the General Sales Manager	7.2	7.4	8.1
Export Enhancement Program a/.....	338.3	566.0	900.0
Targeted Export Assistance Program.	200.0	200.0	200.0
CCC Export Credit Programs:			
Short-term Guarantees.....	4,769.8	5,000.0	5,000.0
Intermediate-term Guarantees.....	425.5	500.0	500.0
Total, CCC Export Credits.....	5,195.3	5,500.0	5,500.0
P.L. 480 Programs:			
Titles I/III Concessional Sales..	767.5	849.0	817.0
Title II Donations.....	699.0	672.6	646.0
Total, P.L. 480.....	1,466.5	1,521.6	1,463.0
Office of International Cooperation and Development.....	37.6	52.8	50.8
TOTAL, International Programs..	$7,340.0	$7,949.1	$8,225.4

a/ Reflects market value of bonuses awarded on approved sales.

50

Foreign Agricultural Service
Program Level Summary
(Dollars in Millions)

Summary of Resources	FY 1989 Actual	FY 1990 Estimate	FY 1991 Request
Foreign Agricultural Service:			
Foreign Market Development.....	$52.6	$53.5	$54.3
Foreign Agricultural Affairs.....	27.5	31.8	33.2
Foreign Market Information and Access.....	14.6	15.8	16.0
Agricultural Trade and Development Missions.....	0.4	0.2	--
TOTAL.....	$95.1	$101.3	$103.5

FAS

The Foreign Agricultural Service (FAS) is primarily responsible for the expansion and maintenance of foreign export markets for U.S. agricultural commodities and products. FAS's activities include:

Worldwide agricultural intelligence and reporting which provides U.S. farmers and traders with information on world agricultural production and trade. This is done through a program of continuous reporting by FAS counselors, attaches, and trade officers stationed at 75 posts located throughout the world. Reporting covers some 110 countries and includes information and data on foreign government policies, analysis of supply and demand conditions, commercial trade relationships, and market opportunities.

Analysis of agricultural information essential to the assessment of foreign supply and demand conditions in order to provide estimates of the current situation and to forecast the export potential for specific U.S. agricultural commodities. Published economic data about commodities are combined with attache reports and subjected to analysis through advanced econometric techniques to generate these estimates.

Foreign market development for U.S. farm products through market expansion activities, including the Foreign Market Development Cooperator Program and the Targeted Export Assistance (TEA) Program. FAS provides services to the U.S. and foreign agricultural trade sectors that are necessary to establish, build, and maintain overseas markets for U.S. agricultural products. The Agricultural Trade Act of 1978 includes authority to establish up to 25 Agricultural Trade Offices. Currently, 15 such offices are in operation at key foreign trading centers to assist U.S. exporters, trade groups, and State export marketing officials in trade promotion.

FAS also formulates the Department's international trade policies and programs with the goal of maintaining and expanding markets for U.S. agricultural products. To this end, FAS monitors international compliance with bilateral and multilateral trade agreements. It identifies restrictive tariff and trade practices which act as barriers to the importation of U.S. agricultural commodities, then supports negotiations to remove them. It acts to counter or eliminate unfair trade practices by other countries that hinder U.S. agricultural exports to third world markets. At present, FAS is actively supporting the U.S. Trade Representative's Office in the negotiations on agricultural reform as part of the Uruguay Round of multilateral trade negotiations.

A program of Agricultural Trade and Development Missions to foreign countries was authorized by Congress in December 1987 to encourage their participation in U.S. agricultural aid and trade programs and to expand U.S. agricultural exports. Mission teams are composed of officials from USDA, the Department of State, and the Agency for International Development, as well as representatives of the private sector, including private voluntary organizations and cooperatives. Missions to a total of 16 countries, the number required by the authorizing statute, are expected to be completed by the end of FY 1990.

A program level of $103.5 million is proposed for FAS in FY 1991, an increase of $2.2 million above the FY 1990 level. The requested increase in funding will help to meet higher operating costs projected for the agency's overseas offices. Overseas operating costs are expected to be higher during FY 1991 as a result of increased wage rates and prices in the countries where the offices are located. Funding for FAS market development activities, including the Foreign Market Development Cooperator Program, will continue at FY 1990 levels. The FY 1991 budget proposes no further funding for Agricultural Trade and Development Missions as the statutory requirement for missions to 16 countries will have been satisfied by the end of FY 1990.

The current services estimate projects the FAS program level increasing to $123.2 million by FY 1995. The policy estimate developed for the FY 1991 budget provides a program level of $105.3 million for FAS for FY 1995.

52

OGSM

The Office of the General Sales Manager (OGSM) formulates policies and administers agricultural commodity export programs including: the Export Enhancement Program (EEP); Public Law 480 which facilitates the sale of agricultural commodities on a long-term credit basis and the donation of agricultural commodities overseas; CCC short and intermediate-term export credit guarantee programs; Section 416(b) overseas commodity donations program; and other export programs authorized by the Commodity Credit Corporation Charter Act (e.g. barter and sales from CCC-owned stocks).

OGSM is funded through a transfer of funds from the CCC. For FY 1991, a transfer of $8.1 million is proposed for OGSM, an increase of $675,000 over the FY 1990 authorized level. This proposal will provide for an increase in OGSM staffing to improve the administration and oversight of the Department's commercial export programs.

The current services baseline provides $9.1 million for OGSM for FY 1995, while the policy baseline provides $8.2 million.

EEP

The Department implemented the Export Enhancement Program (EEP) in May 1985, under authority provided by the CCC Charter Act. That statute authorizes the Secretary of Agriculture to conduct a variety of commercial export programs for the purpose of developing overseas markets for U.S. agricultural commodities. Under the EEP, CCC commodity certificates are made available to U.S. exporters in the form of a bonus in order to make U.S. commodities competitive in targeted export markets. The program was developed to achieve three primary objectives: to regain overseas markets for U.S. agricultural commodities; to challenge the unfair trading practices of competitor countries; and to encourage trading partners to negotiate seriously on reform of world agricultural trade. In this regard, the program is viewed as critical for the U.S. strategy for achieving agricultural policy reform during the Uruguay Round of multilateral trade negotiations.

On November 24, 1989, revised guidelines governing the review and selection of individual EEP sales initiatives were announced by the Department of Agriculture. Four interrelated criteria are to be considered together to result in the selection of commodities and countries for sales opportunities which best meet the program's objectives. These criteria are: (a) trade policy effect -- the anticipated contribution of an EEP sales proposal in furthering negotiations under the Uruguay Round and other trade negotiations: (b) export effect -- the contribution of EEP sales initiatives to U.S. agricultural export goals; (c) effects on nonsubsidizers -- impact of individual EEP initiatives on nonsubsidizing agricultural exporters in the market proposed for an EEP initiative; and (d) subsidy requirements -- subsidy requirements of EEP sales proposals compared to expected benefits.

Since inception of the program, 65 countries have been targeted for one or more EEP sales initiatives, and U.S. exports of 12 different commodities have been assisted. As of January 12, 1990, sales of agricultural commodities under the EEP totaled $9.5 billion, while total bonus awards stood at just under $2.7 billion.

Budget assumptions for CCC anticipate that as much as $900 million of CCC commodity certificates could be made available as EEP bonuses during FY 1991. This is an increase of $334 million over the FY 1990 program level which has been limited by Congressional action. This increase reflects a continued commitment to recent U.S. policy of securing agreement on international agricultural policy reform during the Uruguay Round of multilateral trade negotiations and challenging competitor countries which unfairly subsidize their agricultural exports.

For the period FY 1992 through FY 1995, the policy estimate for EEP assumes a gradual reduction in the annual level of CCC certificate issuances as export bonuses; this reflects continuation of the gradual movement towards greater market orientation in U.S. commodity price and income support programs and the restoration of U.S. competitiveness in international agricultural markets. These projected annual levels for EEP bonuses are considered highly tentative, however, and will be influenced heavily by progress towards international agricultural reform during the Uruguay Round of multilateral trade negotiations.

TEA

The Food Security Act of 1985 mandated that the Secretary of Agriculture use CCC funds or commodities to provide export assistance for U.S. agricultural commodities and products which have been disadvantaged by foreign subsidies, import quotas, or other unfair trade practices. Priority consideration for this assistance must be given to agricultural products which have received a favorable decision under section 301 of the Trade Act of 1974 or whose exports have been adversely affected by retaliatory actions related to a favorable section 301 decision. (Section 301 of the Trade Act of 1974 establishes procedures by which U.S. industries may seek relief from unfair foreign trade practices.)

The Targeted Export Assistance (TEA) Program was established in 1986 to comply with this Food Security Act mandate. The program provides export assistance to U.S. commodities and products by financing sales promotion and market development projects overseas undertaken in response to specific unfair trade practices. Support is provided both for generic promotional programs carried

out by non-profit agricultural associations or regional/state promotion organizations and for Export Incentive Programs administered by private U.S. firms promoting brand identified or high-value products. Program participants are reimbursed with CCC commodity certificates for a portion of their expenses in carrying out approved TEA projects.

Budget assumptions for FY 1991 anticipate a continuation of the TEA program at a level of of $200.0 million, unchanged from FY 1990. For the period FY 1992 through FY 1995, CCC budget assumptions provide for the program to continue at this annual level throughout the period.

CCC Export Credit

Under CCC Charter Act authority, the Department administers two export credit guarantee programs, which are carried out by the Office of the General Sales Manager. These include:

Export Credit Guarantee Program (GSM-102): Guarantees are provided by CCC for repayment of commercial credit extended by private banks to finance U.S. agricultural exports. This program, which was first offered in FY 1980, provides all-risk coverage of up to 98 percent of principal and 4.5 percentage points of the interest. Repayment terms of this short-term guaranteed credit may not exceed three years.

Intermediate Export Credit Guarantee Program (GSM-103): The Food Security Act of 1985 authorized an intermediate-term export credit guarantee program to be offered by CCC. The program, which was implemented during FY 1986, operates in a manner similar to that of the GSM-102 program, but with guarantee coverage provided for intermediate-term commercial credit of between three to ten years. Among its objectives is to assist countries in the transition from concessional to commercial purchasing of U.S. agricultural commodities.

During FY 1991, $5.0 billion of GSM-102 and $500.0 million of GSM-103 export credit guarantees will be made available by CCC. These levels are unchanged from FY 1990. For the period FY 1992 through FY 1995, the policy estimates developed for the FY 1991 budget continue the annual program levels for GSM-102 and GSM-103 guarantees at $5.0 billion and $500.0 million respectively.

Public Law 480 Foreign Food Assistance
Program Level Summary
(Dollars in Millions)

	FY 1989 Actual	FY 1990 Estimate	FY 1991 Request
Titles I/III			
Dollars (Million).....	767.5	849.0	817.0
Tonnage (Million Metric Tons)a/	3.5	4.0	4.4
Title II			
Dollars (Million).....	699.0	672.6	646.0
Tonnage (Million Metric Tons)a/	2.1	1.9	2.0
Total P.L. 480			
Dollars (Million).....	1,466.5	1,521.6	1,463.0
Tonnage (Million Metric Tons)a/	5.6	5.9	6.4

a/ Grain equivalent basis.

Public Law 480

Public Law 480 (P.L. 480), also referred to as the Food for Peace Program, is the primary means by which the U.S. Government provides food assistance to other countries. Enacted in 1954, P.L. 480 has five legislative objectives: (1) expand international trade and develop markets for U.S. agricultural commodities; (2) support economic development within developing countries, including the development of private enterprise; (3) provide humanitarian assistance; (4) enhance food security through local food production; and (5) promote the foreign policy of the United States. P.L. 480 authorizes three programs by which the United States can provide food assistance:

Title I: Concessional credit provided to developing countries for the purchase of U.S. agricultural commodities. The repayment period may last for up to 40 years for the poorest countries with interest rates as low as two and three percent. During FY 1989, 24 developing countries received Title I food aid allocations, and sales made under the program provided for the export of 3.5 million metric tons of agricultural commodities.

The Food Security Act of 1985 amended the Title I program to authorize sales of U.S. commodities for foreign currencies. The foreign currencies received by the United States as a result of these sales are loaned through local financial intermediaries to individuals, cooperatives, or corporations to finance private enterprise investment in the Title I recipient countries.

Title II: Donations of food to meet famine or other urgent relief requirements, to combat malnutrition, and to promote economic and community development. Donations are made through U.S. private voluntary agencies such as CARE and Catholic Relief Services, through the World Food Program of the United Nations, and through government-to-government grants. A major priority for Title II food donations is to help meet the nutritional needs of vulnerable groups in recipient countries. Approximately 70 developing countries received Title II assistance during FY 1989, totalling 2.1 million metric tons. Title II assistance includes the cost of the commodities, plus ocean and some inland transportation expenses.

Title III: Food for Development programs are financed through Title I, but provide forgiveness of the original loan if the recipient country uses the currencies generated by the local sale of the commodities to implement programs in agricultural and rural development, nutrition, health services and population planning. Title III programs are multi-year of between three and five years and are targeted toward the poorest of the developing countries. Title III agreements were signed with two countries during FY 1989.

Food commodities supplied under P.L. 480 contribute to meeting the annual U.S. pledge of 4.47 million metric tons of food grains to the Food Aid Convention (FAC). The FAC, an international agreement first implemented in 1968, is designed to encourage a sharing of food aid responsibilities among as many donor governments as possible. Ten countries and the European Community are currently members of the Convention with total pledges of 7.5 million metric tons of annual assistance.

For FY 1991, a program level of $1,463.0 million is proposed for P.L. 480 food assistance. While this represents a decrease in program funding from the FY 1990 level, total commodity shipments are expected to increase by approximately 500,000 metric tons as a result of lower commodity prices projected for FY 1991. Total P.L. 480 commodity assistance is expected to reach 6.4 million metric tons, although actual tonnages shipped will depend upon commodity prices and shipping costs during FY 1991.

The current services estimate projects that the overall P.L. 480 program level would increase to $1,822.8 million by FY 1995. The policy estimate developed for the FY 1991 budget provides for a total program level of $1,682.0 million in FY 1995. Both of these estimates reflect adjustments to the P.L. 480 program level based on a prescribed formula and do not take account of anticipated changes in U.S. agricultural commodity prices. It is likely, however, that trends in U.S. commodity costs will have considerable bearing on future program levels proposed for P.L. 480 programs.

Office of International Cooperation and Development
Program Level Summary
(Dollars in Millions)

Summary of Resources	FY 1989 Actual	FY 1990 Estimate	FY 1991 Request
Appropriated Funds:			
International Scientific and Technical Cooperation	$3.5	$3.6	$3.9
International Agricultural Development	1.8	1.9	0.5
Foreign Currency Research	1.0	0.9	--
Operation FAST	--	0.5	0.5
Total, Appropriated Funds	6.3	6.9	4.9
Trust Funds	2.9	3.9	3.9
Reimbursable Funds from AID and Other Organizations	28.4	42.0	42.0
TOTAL	$37.6	$52.8	$50.8

OICD

The Office of International Cooperation and Development (OICD) manages those Department of Agriculture programs concerned with cooperative international agricultural research and exchange and providing assistance for developing nations to improve their agricultural production and rural development. OICD's programs include:

Scientific and technical exchange programs between the Department and foreign governments and institutions. Activities are undertaken on a cost-sharing basis with participating countries, universities, and cooperators.

International cooperative research with U.S. colleges of agriculture, foreign research institutions, and other USDA agencies. Examples of this activity include management of the U.S.-Israeli Binational Agricultural Research and Development Fund (BARD), the U.S.-Spain Agricultural Research Program, and the Foreign Currency Research Program.

U.S. participation in international organizations concerned with food, agriculture, and rural development. Among these organizations are the Food and Agriculture Organization of the United Nations (FAO) and the World Food Council (WFC).

International training programs in agricultural and rural development to help other nations develop essential technical and managerial skills necessary for their economic development. Each year, over 2,000 foreign agriculturalists participate in training programs administered by OICD. These activities are funded by other organizations, primarily the Agency for International Development (AID), on a reimbursable basis.

Technical assistance programs for developing countries related to agriculture and rural development. OICD participates in technical assistance projects in approximately 80 countries. These projects include animal health, agricultural crop estimation, soil and water management, pest control, etc. These activities are also largely funded by AID.

For FY 1991, a program level of $50.8 million is proposed for OICD, of which $4.9 million is to be funded through direct appropriations. The budget provides increased funding for the agency's Scientific and Technical Exchange program, which supports short-term exchange visits of U.S. and foreign agricultural scientists. Continued funding is also proposed for Operation FAST -- OICD's Financial Accounting and Systems Tracking Plan. This is a multi-year effort to improve the agency's financial management capabilities.

No further funding is proposed for two OICD activities in FY 1991. The Foreign Currency Research Program, funded at $875,000 in FY 1990, is proposed to be phased out due to reduced levels of U.S.-owned foreign currencies. Also, no further funding is proposed for the training program for agricultural students from middle-income countries. During FY 1990, approximately $1.5 million is available for this program.

The current services estimate for OICD activities supported through direct appropriations provides for an increase in these funds to $8.4 million by FY 1995. The policy estimate for the FY 1991 budget projects OICD appropriated funds at $5.1 million in FY 1995. Current services and policy budget estimates for those OICD activities supported through trust funds and reimbursable payments received from other organizations are not meaningful since the extent of these activities will be dependent on funding made available by the requesting organizations and from other sources.

APPENDIX

FIGURES TO ACCOMPANY TEXT ON

TRENDS IN INTERNATIONAL COMPETITIVENESS

60

Figure 1--U. S. Commodity Market Shares

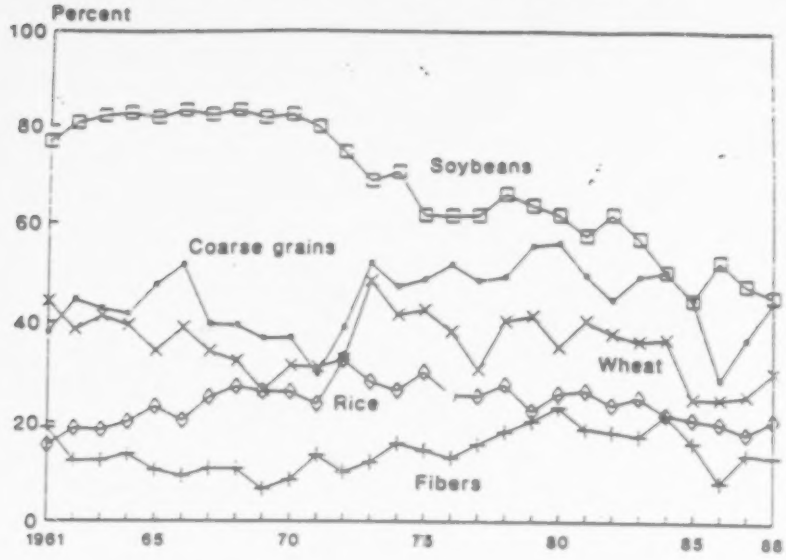
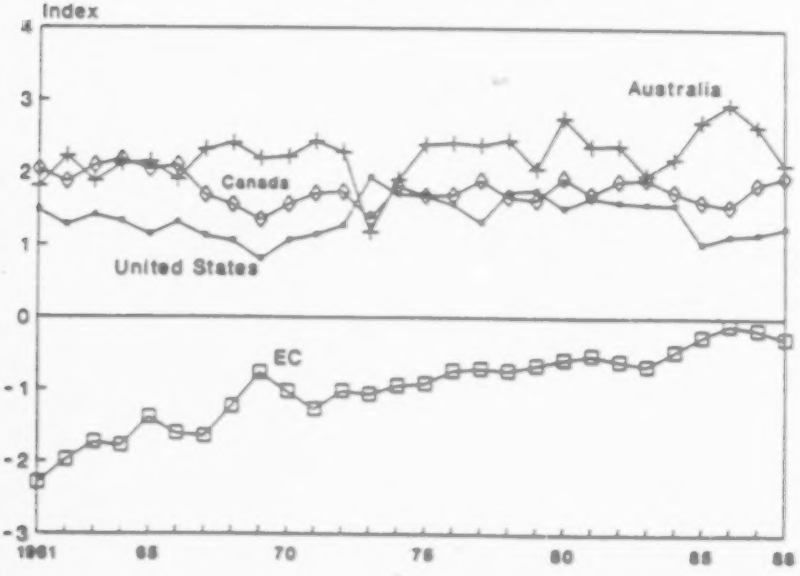


Figure 2--Relative Wheat Export Advantage



61

Figure 3--Relative Coarse Grain Export Advantage

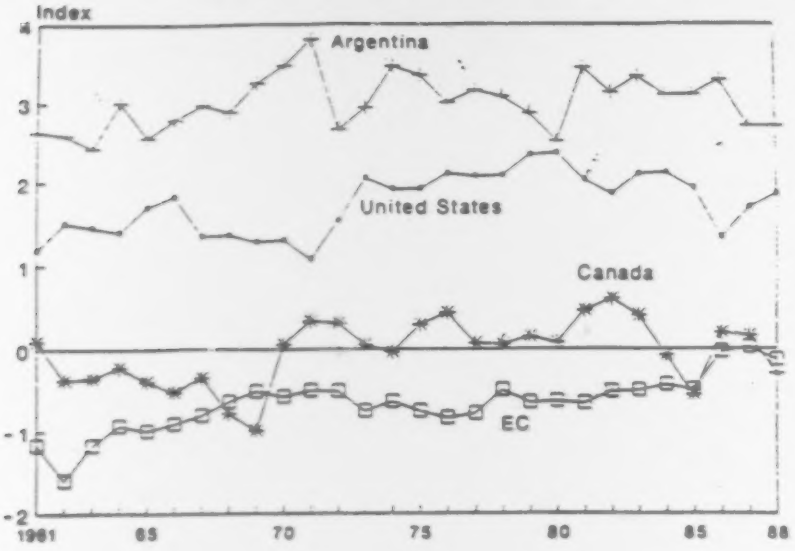
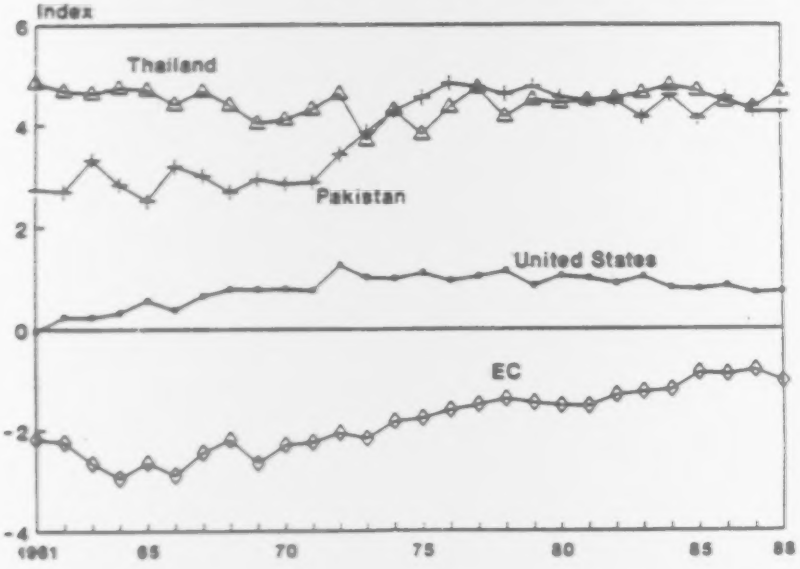
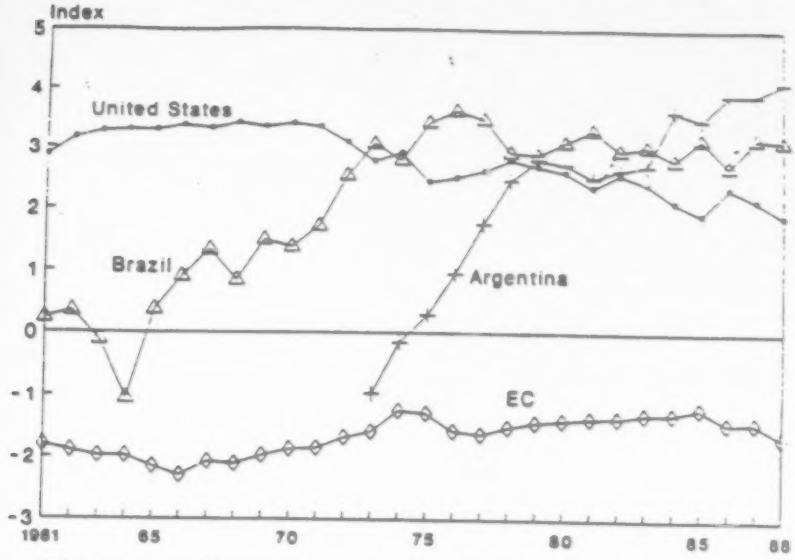


Figure 4--Relative Rice Export Advantage



62

Figure 5--Relative Soybean Export Advantage /1



/1 Argentina soybean exports were negligible prior to 1973.

Figure 6--Relative Fiber Export Advantage

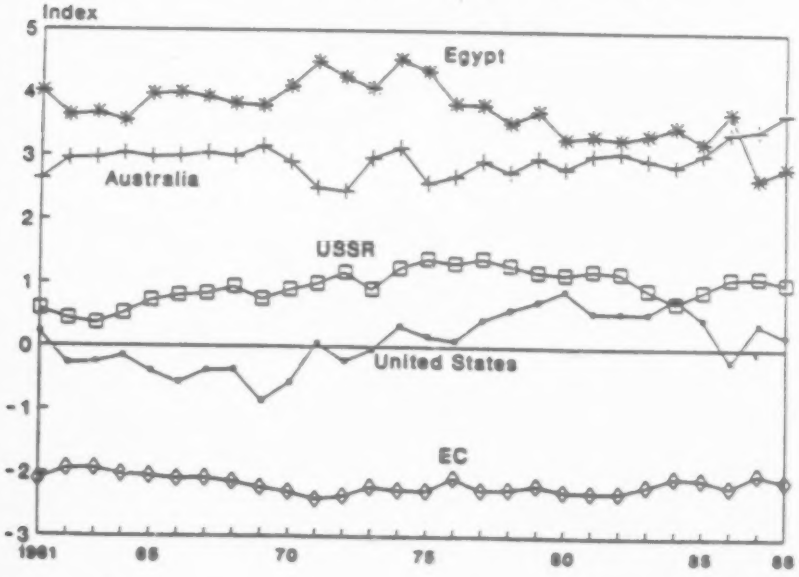


Figure 7--Revealed Agricultural Competitiveness:
United States and Income Groups

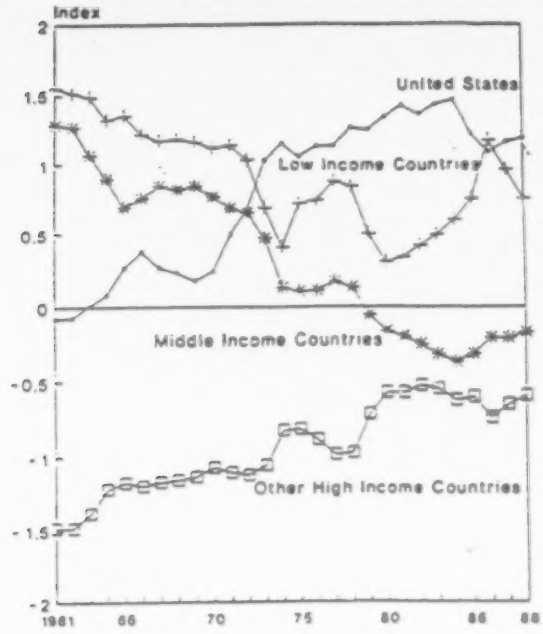
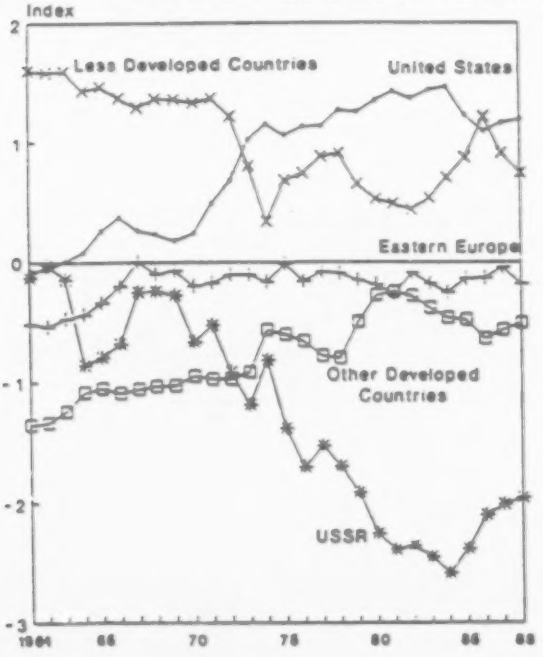
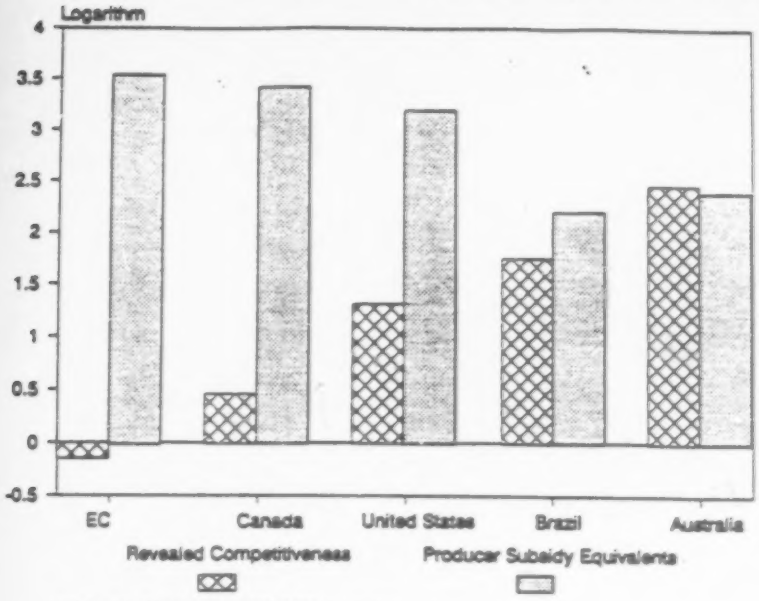


Figure 8--Revealed Agricultural Competitiveness:
United States and Selected Countries



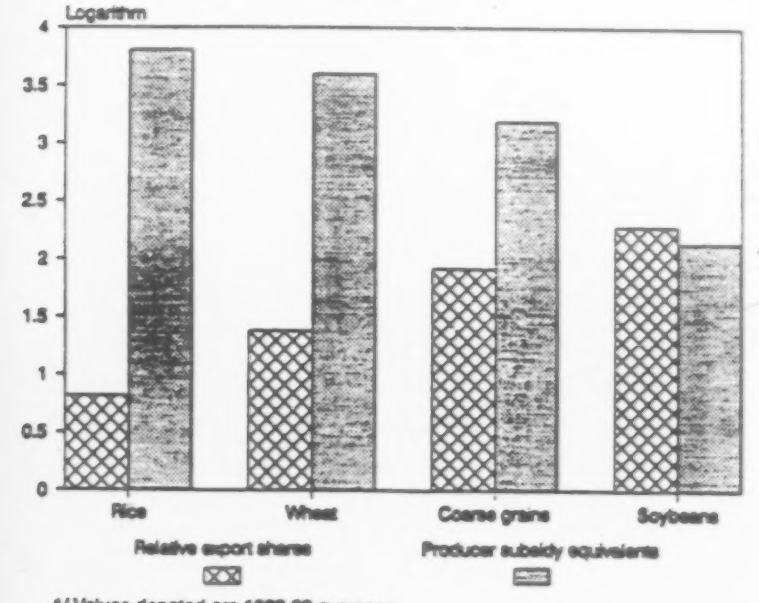
64

Figure 9--Revealed Competitiveness and Producer Subsidy Equivalents: Total Agriculture Among Major Agricultural Exporters /1



1/ Values denoted are 1982-86 averages.

Figure 10--Relative Export Shares and Producers Subsidy Equivalents In U.S. Agriculture /1



1/ Values denoted are 1982-86 averages.